SEPTEMBER 1954

ARMY INFORMATION DIGEST

In This Issue:

SNOW DRIFTS AND SAND DUNES. Both Aggressor and friendly troops battled snow, biting cold and the enervating effects of action at high altitudes during the Army's large scale mountain maneuver last winter. The roof of the Rockies becomes a tough and realistic training ground when "Ski Jump Tests Men and Logistics." In a joint exercise along lower Chesapeake Bay this summer, Army, Navy, Marine Corps and Air Force personnel and West Point Cadets and Canadian midshipmen gained new insights into "Amphibious Operations—Where All Services Meet."

SCHOOL FOR MILITARY POLICE. At Army installations from the British Isles to North Africa, the MP brassard has become a symbol of competence and authority. Methods of detecting and preventing smuggling and black marketing, enforcement of security regulations and solutions to other problems peculiar to post-war Europe also are part of "Military Police Training in Bavaria."

CIVIL SCHOOLING PROGRAM. Courses at forty-seven American and four foreign colleges and universities, preparing qualified Regular officers of the combat arms for specialized assignments, are outlined in "Graduate Schooling for Army Officers."

BOOM IN TRAINING. How an enterprising officer and two enlisted assistants developed an economical, safe and effective training aid, with the characteristic roar, flash and mushrooming cloud effects typical of an atomic bomb blast, is the theme of "A-Bomb Training Aid."

SURVIVOR BENEFITS. Under provisions of the Uniformed Services Contingency Option Act, military personnel may choose to receive reduced retired pay in order to create a monthly life income for surviving widows and dependent children. Details are spelled out in "Annuities for Survivors."

BRIDGING THE GAP from ship to shore has long been a logistical nightmare. A promising solution now under study consists of "Portable Piers and Packaged Ports."

FROM COMPLEXITY TO SIMPLICITY—that is the story of successive organizational changes in the "Command Structure in Europe."

COVER SCENES this month range from the Continental Divide to a divided continent. Mortarmen on the front cover prepare to fire their weapon from a snow banked emplacement during Exercise Ski Jump. On the back cover, students at the USAREUR Military Police School in Germany practice a flying wedge formation for possible use in riot control.

ARMY INFORMATION DIGEST

Vol. 9 No. 9 September 1954

CONTENTS

"Ski Jump" Tests Men and Logistics 3
Major General Charles L. Dasher, Jr.

Amphibious Operations—Where All Services Meet . . 15
Rear Admiral Rufus E. Rose

Command Structure in Europe 19
Frank Walter

Annuities for Survivors 23
Captain Charles C. Semple

A-Bomb Training Aid 31
Major Bernard F. Allen

Military Police Training in Bavaria 35
Lieutenant Colonel Charles W. Lee

Graduate Schooling for Army Officers 43
A. B. Butts

Morale Benefits from Post Exchange Income 49
Oscar S. Glasberg

Portable Piers and Packaged Ports 55
Lieutenant Robin R. Forsberg

Paragraphs from the Pentagon and the Field 60

Lieutenant General William B. Kean, Commanding General, Fifth Army, inspects troops during Exercise Ski Jump.

U. S. Army Photograph

"Ski Jump" Tests Men And Logistics

Major General Charles L. Dasher, Jr.

THE CULMINATING DAY dawned clear and cold. Five thousand tired men of the 511th Airborne Regimental Combat Team and its supporting units caught a glimpse of the sun as it finally broke through overhanging clouds obscuring the passes of the Continental Divide. Snow had been falling steadily for four days, spreading a white blanket over the scarred valleys and ridges of the "battleground" deep in the Colorado mountains.

The invading Aggressor had at one time broken through the defending lines but had been beaten back the night before with heavy losses. This successful action by friendly forces climaxed Exercise Ski Jump and brought the see-saw mid-winter war raging on the "roof of the Rockies" to a conclusion. Thus the Army's large-scale mountain and cold weather warfare maneuver for the winter of 1953-54 ended on 27 March, in the realistic, high altitude setting of Fifth Army's Camp Hale near Leadville, historic Colorado mining town.

"War's" end found the training mission successfully accomplished, under the severest weather and geographical conditions to be found in the United States.

During the action of the preceding week, F-80 Shooting Star jets roared down on the opposing forces, dropping simulated napalm on and "strafing" both the United States and enemy positions on call. Army aircraft free-dropped rations to the advancing paratroopers, screened their approach with smoke grenades, and dropped messages to field commanders. Men maneuvered over the tortuous terrain of the Colorado Rockies, atop the Continental Divide, carrying their equipment and weapons,

---

MAJOR GENERAL CHARLES L. DASHER, Jr., is Deputy Commanding General, Fifth Army, and was Exercise Director of Exercise Ski Jump.

ammunition and rations on their backs or on hand-drawn sleds, in snow three to six feet deep. Their heavier equipment was brought forward on the Army's oversnow tracked vehicles, the "weasel" and the "otter," and by two mule outfits, the only organizations of their kind remaining in the Army.

Exercise Ski Jump was more than just another maneuver. It was a true testing ground for men, beasts and equipment. The "fighting" for the most part, took place at elevations between 10,000 and 12,000 feet, in an area roughly ten miles wide and twenty miles long situated on both sides of the Continental Divide. Temperatures dropped to as low as 27 degrees below zero.

The exercise, assigned to Fifth Army by Army Field Forces, had the twin missions of testing and training American ground forces for peak combat efficiency, and for survival under the most extreme mountain and cold weather conditions. Tested as well were principles of organization, techniques, tactics, equipment, and United States logistical doctrine for mountain and cold weather operations.

Lieutenant General William B. Kean, Commanding General of Fifth Army, had initial responsibility for support, planning, preparation and execution of the exercise. During repeated visits, the Fifth Army Commander briefed the staff on the basic and primary requirement for realism in all phases of training and field exercises. The selected site, located in the rugged mountainous terrain surrounding Camp Hale, provided the necessary elements, and every possible battle condition was simulated. As a result, participating officers and observers describe Ski Jump as one of the toughest and most realistic peacetime maneuvers in recent United States military history.

Although Camp Hale was officially closed after World War II, it has been used every year since 1946 by units ranging in size from a detachment to a regimental combat team. The only other battalion-sized winter exercise held in the Rockies since World War II was Exercise Timber Line which was conducted in the winter of 1947-48 with the 38th Regimental Combat Team of the 2d Infantry Division participating.

The majority of the participating troops in Ski Jump were from the 511th Airborne Regimental Combat Team, 11th Airborne Division, Fort Campbell, Kentucky, with support units primarily from Camp Carson, including the Mountain and Cold Weather Training Command which provided instructors and

technical assistants. Personnel from the Aggressor cadre at Fort Riley, Kansas, assisted in organizing and training one battalion of the 511th RCT to operate under Aggressor concepts. The 35th Quartermaster Pack Company and the 4th Field Artillery Battalion (Pack)—the latter a 75-mm. pack howitzer outfit, and the lone mule artillery unit in the Army—also took part.

Planning for Exercise Ski Jump—based on Department of the Army Forecast of Training Exercises, and Army Field Forces directives—was begun in the early spring of 1953. Headquarters, Camp Carson, and the Mountain Cold Weather Training Command drew up a rough draft of the tactical situation and tentatively selected the area. The 1400 acres of land within the Camp Hale reservation were adequate only for a base camp so an additional 72,000 acres were secured from the U. S. Forest Service.

Logistical Problems. The combination of high altitude and extreme cold created many unusual logistical problems. Supply requirements for food, clothing, tentage, heating equipment and POL (petroleum, oil and lubricants) were unusually large, and transportation of materiel was complicated by the extreme terrain and weather conditions. It was necessary, for example, that engineer crews keep roads cleared to three isolated maneuver bivouacs, the farthest of which was 28 miles from Camp Hale.

The Exercise G4 planned and supervised the logistical phase of the operation and rendered all possible assistance in an advisory capacity, but responsibility for actual receipt, storage and issue of equipment rested with the Commanding General, Camp Carson. Trains, trucks and aircraft brought in many tons of supplies. After the shipments arrived, trucks, "weasels" (cargo carriers, M29), Army aircraft and Air Force planes distributed them. In addition, Army mules carried 250-pound loads up the rugged mountain trails.

Exercise Phases. The exercise was divided into three successive phases. The first, beginning 3 January, was a preliminary training program for the advance cadre. Phase II was devoted to training individuals and small units of the main body. The third and final phase, the regimental combat team exercise, involved all personnel.

Cadre training consisted of a four-week indoctrination program for selected individuals from the 511th Regimental Combat Team, their supporting units, and umpire and Aggressor groups. This cadre, consisting of 400 men, arrived the first week

in January. Its first stop was Camp Carson, where the troops drew their cold weather clothing. Three days later, they arrived at Camp Hale where they received nineteen hours of preliminary instruction during the first week. The subjects included winter first aid and personal hygiene, winter tactics, care of weapons in extreme cold, preparation of field rations and map reading. Next the cadre received three weeks of indoctrination

Forward observers direct fire of the 4th Field Artillery Battalion (Pack).
U. S. Army Photograph

in the fundamentals and techniques of skiing, snowshoeing and living under conditions of extreme cold. Training was conducted by veteran instructors of the Mountain and Cold Weather Training Command.

Although some members of the cadre had never before seen snow, the end of this rigorous training period found them well enough acquainted with cold weather and mountain procedures to instruct incoming troops of their own units who arrived later.

Individual and Unit Training. The second phase consisted of five weeks of individual and unit training for the main body of participating troops, plus a one-week exercise for each of the three battalion combat teams. Since a large number of the troops had come from installations near sea level and were unaccustomed to the thin air at high altitudes, the week at Camp Carson (elevation 6000 feet) was excellent conditioning for the training at Camp Hale (elevation 9000 feet). At Camp Carson, the troops received classroom indoctrination and were issued cold weather clothing and equipment.

The first Battalion Combat Team, plus Regimental Combat Team Headquarters, arrived at Camp Carson on 24 January. The other two BCTs followed at weekly intervals. After the initial week at Camp Carson, they moved to Camp Hale for two weeks of individual winter indoctrination by the trained cadre, and then went on to the bivouac areas. During the second week they began tactical training under mountain and arctic conditions.

During the fourth and fifth weeks, small unit instruction was conducted and the men did practical work on skis, becoming proficient in cross-country movement. Unit training consisted of squad, platoon and company size exercises involving movement, defense perimeters, and combat patrols.

The sixth and last week of unit training for each BCT was the battalion-size exercise, consisting of all phases of a field exercise including movement to an assembly area, an attack, securing and organizing an objective, a night withdrawal, and establishing a defense. Aggressor forces and umpires were used, and practice in tactical and supply air missions was conducted and controlled by Air Control Teams.

Prior to the BCT exercises, Ski Jump Headquarters organized a Maneuver Control Center with representatives from G2, G3, the Chief Umpire, Air Force Liaison, and Aggressor forces, assembled in one group for better over-all control.

Each BCT exercise was held in a different area and over difficult terrain, but in each case all phases of a normal field exercise were included. Training in oversnow movement was tested and found to be satisfactory. Individual riflemen experienced no great difficulty, but the displacement of heavier equipment, mainly support weapons and ammunition, was arduous.

Ball ammunition was used to fire individual weapons on known distance courses prior to the BCT maneuvers. Blank

ammunition was used throughout unit training and also during the battalion and regimental combat team exercises. Expenditures of blank ammunition were considerably below allowances since the exercises were generally characterized by small unit actions. Large forces never engaged in extended fire fights.

Umpire Training. The major share of control and co-ordination during the battalion and regimental combat team training fell on the umpire group. Their program consisted of five

A weasel carrying a 105-mm. recoilless rifle was one of the mechanized units in action in Exercise Ski Jump. U. S. Army Photograph

phases—cadre training; the umpire school itself which included 48 hours of academic classroom instruction; training of the main umpire group in oversnow mobility; umpiring of the battalion combat team exercises; and finally, umpiring the regimental combat team exercise.

The chief umpire retained operational control of his assist-

ants at all times. He also maintained control of the Aggressor forces through the Aggressor umpire and his assigned staff. During all the exercises, troop locations and contemplated plans of United States units, plus other necessary information, were reported to Aggressor umpires so that appropriate action could be taken to keep the problem within the planned limits.

A highly effective communication system of radios and telephones was used to keep umpires and the Exercise Director, in the Maneuver Control Center, aware of all developments. It was found that it requires an average of one communication specialist per umpire to provide the type of services needed to exercise full control in such a maneuver. Wire lines were completed in November and tests were made of three types of radio sets to be used in the umpire net. By the time the BCT exercise began, transmission difficulties were largely overcome and communications were excellent.

Umpire operations, based on FM 105-5, worked successfully. Umpires assigned to platoon-size (approximately 40 men) and larger units accompanied groups at all times. Through a knowledge of Aggressor as well as friendly activities, the unit umpire was able to assess casualties accurately in his unit and to advise the unit commander of the amount of simulated fire power being brought down on his position. He also determined whether the commander's actions were adequate to overcome the enemy.

The umpires' final reports furnished the basis for an accurate critique of each unit and, to a great extent, determined the actual value of the maneuver to both men and units. The reports further revealed whether prescribed doctrines would be effective in actual situations similar to those simulated in the exercise.

Intelligence and Aggressor. The Aggressor cadre was composed of detachments of the 47th Engineer Camouflage Battalion and the Sonic Effects Platoon, both from Fort Riley. The latter unit conducted a demonstration of simulated battlefield sounds.

Members of the Aggressor Battalion, composed of the 2d Battalion Combat Team, received instruction in the Aggressor language, uniform, insignia and order of battle. In addition, they were given the standard winter indoctrination received by all troops in Ski Jump. They also received training in methods of infiltration and collecting information behind lines, and in the utilization of propaganda leaflets and broadcasting facilities to weaken morale.

A detailed intelligence control plan for the RCT exercise was prepared by the Ski Jump G2 section. Follow-up messages were used to indicate Aggressor activity in the zone of simulated friendly forces on the division front and left flank, thus creating the situations for the actual play of the exercise.

A platoon of twenty-eight men was trained to simulate guerrilla activity during the RCT exercise. This unit remained be-

A platoon of the 35th Quartermaster Pack Company prepares to unload its mule-born supplies at Camp Hale. U. S. Army Photograph

hind United States lines for three days, employing techniques that might easily be encountered in a combat situation.

Working with the Ski Jump G2 Section was an Air Force weather officer from the 3d Weather Squadron, Pope Air Force Base, Fort Bragg, North Carolina. The 6th Weather Squadron, Tinker Air Force Base, Oklahoma, established a station at Camp Hale, and daily forecasts were issued to all units. During the BCT and RCT exercises, front-line weather observations were transmitted every three hours to the Ski Jump G2.

Air Activities. BCT forces were supported by F-86 (Sabre-

jets) of the 479th Fighter Wing, and by C-119 cargo transports of the 463d Troop Carrier Wing. F-80 Shooting Stars and T-33 aircraft from the 120th Fighter Squadron of the Colorado Air National Guard also were used during the RCT exercise.

Plans called for an air drop of dummy supplies for each of the three BCT exercises and an air drop of supplies to two United States battalions and one Aggressor battalion during the RCT exercise. Adverse weather, however, made it necessary to eliminate all but one air drop during the first BCT exercise.

An Air Force Liaison Officer was assigned to Ski Jump late in February and a Ground Liaison Officer took up duties at Peterson Field, Colorado Springs, Colorado. An Air Force radio net was established between Peterson Field where the Sabrejets were temporarily based, and the Exercise Headquarters at Camp Hale. Air control teams used vehicle-mounted sets for ground-to-ground communications. Camp Hale was worked into the net to establish cross communication. In addition, each of the air control teams and the Air Liaison Officer was issued a Navy MAY set for air-to-ground radio communication.

Although bad weather curtailed air operations, Army aircraft played a major role in the exercises. Flights were made to accomplish fire marking, emergency evacuation, aerial resupply, observer transportation, leaflet drops, umpire control, and courier missions. The L-20, adapted to carry two litter patients and a medical attendant, was used to evacuate injured personnel to Camp Carson. Of the 196 flights made, 13 were evacuations of patients from the "combat" area.

Three H-19D helicopters arrived in the maneuver area in February, but were not integrated into tactical or administrative operations, as tests of their capabilities were not then entirely completed. It was clearly demonstrated, however, that a helicopter with better altitude capabilities would be a great step forward in increasing mobility in mountains and deep snow.

Main Event. The effectiveness of the ten-week individual and small unit training program and the three BCT exercises was finally put to trial on 20 March when five thousand troops joined as a team to launch the final RCT exercise.

The RCT problem was developed as a localized action predicated upon a hypothetical invasion by full-scale Aggressor forces who early in 1953 had launched an amphibious assault against the western coast of the United States. It was assumed

that by Christmas of that year, Aggressor had occupied the western states up to and including western Colorado.

The next objective of the invading force was the strategic Tennessee Pass which cuts through the Colorado Rockies on the Continental Divide, to form a natural gateway to the great plains of the Middle West. Aggressor forces had dispatched trained Alpine units of undetermined strength to take this area.

As a defense, United States forces had set up a line west of the Tennessee Pass, with the 31st Division (simulated) on the right flank, and the 39th Infantry Regiment of the 9th Division (simulated), V Corps, to the south.

The Commanding General, Fifth Army, attached the 511th Airborne RCT, which had received special Alpine training, to I Corps, and the latter, in turn, attached the RCT to the 31st Division to counter the threat to the Pass and to combat Aggressor units driving eastward in the 39th Infantry sector.

On 20 March the commanding officer of the 511th RCT received the order to assemble his unit, and later to move one of his battalions to the south to establish a counter-defense in the vicinity of Mount Kevin. Because of the necessity for diverting one battalion of the 511th to play the Aggressor role, defense of this area was simulated. A "paper" battalion was ordered to a blocking position to prevent an enemy breakthrough on the extreme left flank.

Continuous enemy build-up to the south by 24 March forced a night withdrawal by United States forces on Mount Kevin. The latter fell back to avoid encirclement and set up a mined and barbed wire defense on high ground at Long's Gulch.

Tactics of the United States troops on the left succeeded in stopping Aggressor's drive eastward, sufficiently neutralizing the situation to permit the former to mount a counterattack. On 25 March, the RCT commander received the order to attack and the next day both battalions advanced in a co-ordinated effort.

By this time Aggressor, hit by numerous air strikes, had lost about half his men and as a result was suffering a commensurate reduction in morale and combat efficiency.

Aggressor Forces fell back and on 27 March the RCT commander was ordered in pursuit to the original Corps boundary; this eliminated the threat to the friendly flank and brought the RCT problem to a close.

Although the RCT exercise was not a free maneuver, field

commanders of both sides had considerable prerogative in meeting battle situations as they developed. In one case, an Aggressor commander attacking a United States defensive position with two companies actually achieved a breakthrough, causing confusion in the rear until two United States reserve companies were thrown into the battle to drive them back.

Realism was stressed throughout. Units were required to make long cross-country moves over some of the most rugged terrain in the continental United States. The 4th Field Artillery Battalion (Pack) acted as Aggressor Artillery, and Army mules did an excellent job of carrying the 75-mm. pack howitzers into position to deliver rapid and effective fire. The 35th Quartermaster Pack Company was used by friendly forces and here too, mules performed arduous tasks of carrying supplies and ammunition over precarious mountain trails.

Maneuver Lessons. The importance of basing a defensive position on commanding terrain was one of the cardinal lessons learned. In mountainous areas that means on the heights, as it did in Korea. Ski Jump further established the necessity of preparing alternate positions farther down the slope to cope with those periods during the day or night when visibility is restricted by wind-blown snow, mists or fog. In these mountains, mutual support between units in a defensive position is often impractical, and active patrolling is vital to prevent infiltration.

Barbed wire and mines proved effective in maintaining the security of positions. Two single strands of wire stretched along a critical part of the front will do much to deter an enemy from mounting an attack in deep snow. Supply trails needed to be maintained constantly and covered routes were used, if possible, to conceal tracks. Map reading under these circumstances was extremely difficult, and reconnaissance was necessarily at a premium. Guides were used frequently as far forward as they could be placed.

Troops at this altitude quickly burn up energy and rapidly become dehydrated. They must be taught to drink plenty of water, and above all they must not be pushed beyond their capabilities. Planning for troop movements requires adequate provision for "breaks" for eating and resting. In addition, sufficient time must be allocated between phases to get personnel, materiel and equipment back into shape. Individual care of equipment must be particularly emphasized, for vehicles are

quickly buried under snow if abandoned, and rifles soon rust without proper care.

Individual training by skilled instructors from the Mountain and Cold Weather Training Command was found to be excellent, but the period allotted instructors was not sufficient to produce finished ski troops. It takes at least five months of practice in this type of terrain to attain the necessary skill to master winter warfare.

During field operations maneuver units were largely dependent on M29 weasels and mules for logistical support and there was an insufficient number of both. While mules are highly effective in difficult terrain over well-packed trails, the weasels could haul only a limited quantity of supplies under similar conditions. The need for an efficient oversnow vehicle to replace the M29 was apparent. Demonstrated also was the definite need for a helicopter that will operate safely up to altitudes of 15,000 feet for supply and evacuation missions.

Tactical doctrine was proven sound. Decentralization is characteristic in mountain operations over deep snow. Standing Operating Procedures should be drawn up and issued down to platoon level, and should include organization for combat, making bivouac, march formations, selection of routes, and the types of emergency shelter to be utilized.

The umpires and the Tactical Air Force did an excellent job, and the Ski Jump staff, coming as it did from widely scattered installations, was quick to weld itself into an efficient, co-operative, working organization. Troops acquired realistic battle experience during the three months of hard training and hard "fighting."

While it must be emphasized that generally it is impossible to produce a finished Alpine fighter within a two-month period, troops of Ski Jump discovered, to their satisfaction, that they could live, move and fight in rugged terrain covered by deep snow at sub-zero temperatures. Most important of the lessons learned by troops was the fact that Nature does not lick the soldier who has the requisite combat skill, who is properly conditioned and who is determined to make Nature his ally.

Amphibious Operations—Where All Services Meet

Rear Admiral Rufus E. Rose

"ENEMY" TROOPS assaulted and seized American beaches in Virginia several times this summer, but their objectives were not simply the acquisition of real estate from which to launch a full-scale invasion. Instead, they were concerned with the training of officer candidates of the United States and Canada who might at some future date be called upon to lead an assault on enemy beaches.

Joint operations of the type which came into prominence in World War II, are now accepted strategy and the amphibious landing, perhaps the most difficult and complex of all military movements, presents an unparalleled opportunity for training in its fundamentals. And it is training in which all branches of the Armed Forces must be proficient. It is obviously wasteful of time and materiel to place an air umbrella over a beach objective and pin down the troops intending to defend it, if the Navy is unable to land ground forces at the exact time and place called for in the operational plan. It is equally futile for the Navy to carry out effectively its mission of bringing combat troops to the beaches if these troops are unacquainted with or inexperienced in the techniques of debarking, coming ashore, deploying and advancing on the foe. Within the space of a few thousand yards—in the narrow gap between the seaborne invasion force and enemy resistance on shore—the hitting power of all branches of the Armed Forces must be marshalled and co-ordinated for maximum effect.

Air Force and carrier-based planes must clear the air of counterattacking aircraft, while naval vessels carrying Army troops and supplies thread their way through approaches cleared

REAR ADMIRAL RUFUS E. ROSE, USN, is Commander, Amphibious Training Command, U.S. Atlantic Fleet.

Men and vehicles get a foretaste of salt water and sand during a preliminary demonstration at Little Creek, Virginia. U. S. Navy Photograph

by minesweepers and underwater demolition teams. Air Force attack bombers and offshore naval batteries combine to neutralize enemy strongpoints, while farther inland paratroopers slash out in surprise attacks on enemy rear areas. Meanwhile, moving ashore by amphibious craft and helicopter, Marines fight to secure the beaches. So whether it be in amphibious operations or in ground combat, the more that Army or Navy or Marine Corps or Air Force personnel know about the organization, operations, capabilities and limitations of their sister services, the higher will be the level of performance of all participating in joint operations—either in training or in war.

If joint effort is to be successful, it must be closely timed and smoothly synchronized. Skill in these operations is born of constant study and practice, such as that which unfolds each summer on the beaches of lower Chesapeake Bay.

Midshipmen from the United States Naval Academy at Annapolis and from fifty-two of the Nation's foremost colleges and universities, the entire first class of Cadets from the United States Military Academy at West Point, and Canadian naval cadets—all benefit from summer training given at the U. S. Naval Amphibious Base, Little Creek, Norfolk, Virginia. During two weeks at the Base, trainees gain much practical knowledge which their instructors acquired in bitter lessons all over the world.

This summer marked the ninth year in which future officers have been instructed in amphibious subjects as divergent as operation of small landing craft and the complete planning of an amphibious operation. From 7 to 19 June, 745 Midshipmen from Annapolis and 26 Canadian Naval Cadets from 13 colleges throughout Canada received instruction in amphibious warfare.

Reservists from 52 civilian colleges and universities participated in two training periods, from 25 June to 16 July and 19 July until 5 August. Because the training afforded all three groups was similar in nature, a description of the instruction given during the first cycle provides an accurate picture of the pattern followed in each.

Titled officially and cryptically *Tramid '54* (for Training of Midshipmen, 1954) the activity can be described even more succinctly as "Plain Hard Work."

First taste of amphibious operations for the trainees consisted of study of the organization and functions of a joint amphibious task force. Then, after an over-all look at amphibious operations, the men received instruction in specialized aspects of such warfare. Typical of these subjects was "Amphibious Intelligence," in which the future officers learned to collect, evaluate, and disseminate intelligence in amphibious operations.

The trainees were taught the requirements of and the need for an amphibious operation plan; they were briefed on the influence of atomic weapons on such operations; and they studied the planning problems and procedures of combat loading of ships and logistical ship-to-shore movement.

In a typical fast-moving day the students became familiar with the chain of casualty evacuation (from forward positions, to beach, to hospital ships) and then investigated the potential value of employing helicopters in such operations.

Indoors and out, the United States and Canadian trainees gained the benefit of other people's experiences in a two-week capsule. They descended from landing nets at sea, took part in ship-to-shore movement and shore party operations, and tried out boat handling, beach party operations, naval gunfire support, and communications.

Many of them for the first time became familiar with equipment unique with the amphibs—the famous World War II DUKW, special salvage boats, and beach salvage vehicles known as "Jeehemys" and "Gilhoists." They saw all of these in action, and marveled at the "Gilhoists" as they picked up landing craft and transported them across soft sand.

Before America's future defenders actually go aboard ship, they study types and employment of all amphibious ships as well as landing force and boat team tactics.

Going afloat for four days, the men played the roles of navi-

gators, combat information center officers, lookouts, deck officers and engineers, and performed all of the other numerous tasks of a sea-going amphibious officer. Then on the last day, the two weeks of exertions were capped with one of the most colorful and realistic military exercises in the United States.

While the Canadians and some of the Midshipmen remained aboard ships performing afloat jobs, 586 Midshipmen made an amphibious landing on the beaches of Camp Pendleton, a World War II Army camp near Little Creek.

A task force of 14,000 men in 35 offshore ships provided the landing craft and furnished logistical support for the Midshipmen and the two thousand battle-hardened Marines who hit the beach together. From bleachers on the shore several hundred civilian and high-ranking military officers watched the landings. Present also were five hundred Cadets of the new first class at the United States Military Academy, to observe the action as part of their instruction in joint operations.

An exercise in unification in every respect, the assault was supported by units from the U. S. Army and Air Force. Aircraft from the Fleet Marine Force, and the Tactical Air Command, United States Air Force, flew close air support missions, while reenforcements were supplied by paratroopers from the Army's famed 82d Airborne Division.

The 35-ship task force included an aircraft carrier, a cruiser, destroyers, a cargo ship, attack transports, landing ships tank, landing craft utility, landing ships dock, landing craft rocket, and other amphibious ships and craft. Large combatant ships simulated naval gunfire support.

The landing also featured underwater demolition teams (Frogmen) laying explosives on the beach. Amphibious ships and craft launched causeways and unloaded supplies, heavy trucks and tanks. But above and beyond the skills acquired in solving these immediate problems, the primary aim of the training was to impart an understanding of fundamentals.

Authorities have described the amphibious operation as one of the best and most practical examples of "unification" among military organizations. With the Army, Marine Corps and Air Force providing support of the landing operation, and the Canadian Cadets training beside them, hundreds of future officers this summer experienced first-hand the meaning of unification.

A Study In Simplification—

Command Structure in Europe

Frank Walter

WHEN a football team has too many quarterbacks, a factory too many foremen, or a military structure too many commanders, the task at hand either will not be accomplished efficiently or it will take so long that the end result will not be worth the effort involved.

As late as the spring of 1952, the United States military command structure in Europe consisted of several indivdual commands, each possessing almost equal authority. When problems of policy common to two or more could not be solved by mutual consent, they were referred to the Joint Chiefs of Staff in Washington for action. This meant that no less than five major military headquarters were sending requests to the Joint Chiefs on topics ranging from their individual roles in European defense, to the proper uniform for off-duty wear.

The Army, Navy and Air Force each had its own headquarters in Heidelberg, London and Wiesbaden respectively. In addition, U.S. Forces, Austria and a similar command in Trieste were also maintained as separate headquarters. The commanders of the U.S. Army, Navy and Air Force in Europe also were the Joint Chiefs of Staff Representatives, Europe (JCSRE). In this additional capacity, although their authority was limited to the field of planning, they also reported directly to the Joint Chiefs.

In fact the only line of unified authority then existing was in the field of military assistance. The U.S. Military Representative for Military Assistance (MILREP), represented both the Joint Chiefs and the Department of Defense and had command authority over the Military Assistance Advisory Groups

FRANK WALTER is Historian, United States European Command.

(MAAGs) and the Military Aid Missions in the various European countries. Also, the Joint American Military Advisory Group-Europe (JAMAG) supplied substantial co-ordination between military planning of major commands and military assistance activities.

In the face of this situation, the then Secretary of Defense, Robert A. Lovett, sought an appropriate leader to take charge of, and be responsible for, the over-all U.S. military structure in Europe. A central authority would be in a position to eliminate duplication in the supply program and produce economy in the use of personnel and funds. The most logical choice was General of the Army Dwight D. Eisenhower, who at the time held the post of Supreme Allied Commander, Europe (SACEUR), for the North Atlantic Treaty Organization. Accordingly, Secretary Lovett asked the General to be Commander-in-Chief, U.S. European Command (USCINCEUR) of all American Forces in Europe, in addition to his job as Supreme Allied Commander, Europe.

After considerable discussion, General Eisenhower appointed an Ad Hoc Committee in February 1952, with representation from the Army, Navy and Air Force, to study the feasibility of establishing the proposed unified command. The Terms of Reference, or the "ground rules," for the dual role of SACEUR and USCINCEUR were still under consideration when General Eisenhower returned to the United States.

General Matthew B. Ridgway, who succeeded General Eisenhower as SACEUR, was the first to be both international and American commander at the same time. Even then, he did not accept the new assignment until he had thoroughly discussed the matter with General Thomas T. Handy, then commanding U.S. Army Forces in Europe. Following these discussions, General Handy was appointed Deputy USCINCEUR and assigned much of the responsibility for administering the new command. Shortly afterwards, on 1 August 1952, Headquarters, United States European Command (USEUCOM) was officially established, with offices in the I. G. Farben Building in Frankfurt. Under this headquarters and within its chain of command were subordinated the five major commands that heretofore had been independent—Army, Navy, Air Force, and U.S. Forces in both Austria and Trieste.

In addition, the military assistance roles of U.S. Military

Representative for Military Assistance (MILREP) and the Joint American Military Advisory Group Europe (JAMAG) were consolidated and formed into a single unit, the Military Assistance Division, within the new Headquarters. Along these same lines, the Joint Construction Agency, established late in 1952 to supervise most construction requirements in Europe, also was brought under the control of USEUCOM Headquarters.

There were many problems to be ironed out, but by the summer of 1953 when General Alfred M. Gruenther replaced General Ridgway both as SACEUR and USCINCEUR, there was little doubt that USEUCOM was operating with efficiency. During this changeover of command, General Handy stayed on as Deputy USCINCEUR. He continued to hold the post until he retired on 31 March 1954. General Orval R. Cook, USAF, was named his successor. A few months later USEUCOM moved to its permanent location at Camp Des Loges near Paris.

Manning this huge and complex interservice headquarters, from the Office of the Deputy Commander-in-Chief, U.S. European Command down through each of the staff divisions, are officers and enlisted personnel from each of the three services. General Cook's Chief of Staff is an Army major general; Navy admirals direct two of the staff divisions.

The over-all mission of the U.S. European Command is to exercise joint authority and control over all United States forces within its area of responsibility. In this connection USEUCOM supports the Supreme Allied Commander in Europe and is the senior United States military representative for all joint matters in the fields of international negotiations, procurement, construction, communications and politico-military matters.

The organizational structure of the Headquarters, while seemingly complicated, is actually fairly simple. Directly under the Deputy Chief of Staff is the Secretariat consisting of the Visitors Bureau, Administrative Branch, Headquarters Supply and Service, Files and Registries, and Staff Message Control. Here also is a Political Adviser who keeps the Commander informed on the political aspects of various military problems as well as all other political factors affecting the area for which USCINCEUR is responsible. The Public Information Office, too, is directly under the Deputy.

Next come seven Divisions, six of which are primarily concerned with the preparation, co-ordination and approval of plans

and policies. Four of the Divisions bear the letter J as their prefix. J-1, known as Morale and Welfare Division, deals with the activities indicated by its name and includes also troop information and education, community relations and personnel matters affecting two or more services. J-2, Intelligence, operates in a fashion similar to the Joint Intelligence Group of the Joint Chiefs of Staff in Washington. J-3, Plans and Policies Division, is primarily concerned with the co-ordination of military planning efforts, including operational, training and deployment programs. J-4, Logistics Division, has branches working in the fields of supply planning, foreign military rights, interservice support, procurement and construction.

Still another Division, Communications and Electronics, represents the United States on all communications committees and groups in Europe. It is also responsible for the operation of the USEUCOM communications net. The Comptroller Division functions mainly on a supervisory level. It co-ordinates budgetary, fiscal and audit problems of a joint concern to assure that military expenditures return the highest possible dollar value.

A seventh division, Military Assistance, is essentially operational. It administers and supervises all military aid to NATO and other European countries and though the functions involved vary in nature and extent from one country to another, they include the over-all determination of requirements, the allocation of quantity and types of materiel, procurement, distribution, organization and operation of training programs, and the assignment of foreign military personnel to United States service schools. Assistance, when necessary, is received from other USEUCOM Divisions as well as from the competent commands.

Since this smoothly meshed organization was established in August 1952, Headquarters, United States European Command has been the quarterback for the United States military team in Europe, calling the signals in matters of plans, policies, logistics and military aid for the Army, Navy, Air Force and other agencies whose mission it is to carry the ball.

Annuities For Survivors

Captain Charles C. Semple

HOW SHALL I PROVIDE a continuing income for my family? That has long been a question besetting many a member of the Army and the other uniformed services who has already retired or is facing the completion of his active service. Because his own retirement pay automatically ceases on his death, such a problem is of direct concern to the prudent man who desires to assure his survivors' welfare.

Previously the individual had to rely upon savings, insurance, investments or a combination of these to provide for his family upon his death. Now however the Army member who is retired or about to be retired may assure a certain fixed monthly income for surviving members of his immediate family under the Uniformed Services Contingency Option Act (Public Law 239—83d Congress) which went into effect 1 November 1953.

Under its provisions the retired person may establish an annuity for his family by accepting reductions in his own monthly

CAPTAIN CHARLES C. SEMPLE, Finance Corps, is Chief, Military Pay Procedures Branch, Systems and Procedures Division, Office of the Chief of Finance.

retired pay. The member may judiciously combine his Government or commercial life insurance, savings, investments or combinations of these with the annuity to be certain that his survivors will receive a monthly income. As with any financial decision, however, each individual should understand the workings of the plan, what it will provide, what it will cost, and its limitations as well as its obvious benefits.

This annuity, it should be noted, is not a gift or a grant by the Government. The entire plan is designed to pay for itself on a sound actuarial basis through reductions in monthly pay of participating members.

In effect, the individual actually purchases the annuity for his family out of his own monthly pay by accepting a reduction in retirement pay. Thus a smaller income during his retirement years assures a continuing income for his family after his death. This may be, according to his choice, one half, one fourth or one eighth of his *reduced* monthly income—that is, the amount of his gross retired pay left after the deduction for his participation in the plan is subtracted, and before other deductions for income tax, allotments and the like, are subtracted.

Each individual may further designate to which members of his immediate family the benefits will be paid after his death—that is, whether to his widow (or in the case of a woman retired member, to her surviving husband), to the eligible children, or to spouse *and* children. In order to establish a type of annuity that may fit any one of such cases, the Act provides for three basic "options" that may be chosen, with a fourth that may be utilized in conjunction with any of the three.

Members of the Army and of the other uniformed services who desire to participate in the plan are required to make a choice of the various options offered, upon completing eighteen years of service for pay purposes. Those who are now retired must have made their choice by 30 April 1954 but time has been extended for those having completed eighteen years or who will have attained that figure within a year after the effective date of the law (1 November 1953). These personnel now have until 1 November 1954 to signify a choice. Any member on active duty who has previously submitted an option also may make a new choice prior to 1 November 1954.

Option 1. This provides for payments to the retired member's spouse commencing after the retired member's death and

ending at such time as the spouse may remarry or die.

Option 2. Provides annuity payable to the retired member's surviving children commencing after member's death and ending at such time as the child or children reach age 18, marry or die. (*Note.*—Children over 18 and unmarried may be eligible if mentally incompetent or physically handicapped and if such conditions existed prior to reaching age 18. If several children survive, payments are prorated among those remaining when one becomes ineligible for any reason. By choosing this option all eligible children are covered, with the total payments being divided equally.)

Option 3. Establishes an annuity for spouse *and* children, with entire amount payable to spouse while eligible; in case of his or her death or remarriage, payments are prorated among surviving children, as in Option 2.

Option 4. Actually, this is a variant which can be applied only in conjunction with one of the first three Options. If all designated annuitants die, or otherwise become ineligible before the death of the retired member, no further deductions will be made in his retired pay. Unless this Option is selected, along with one of the others, deductions will continue as long as he lives, even though he has no survivors.

Care should be exercised in electing an Option. It is entirely possible, for instance, that a retired person who has not selected Option 4 in conjunction with one of the first three may find himself paying under the plan even though there remains no eligible beneficiary. On the other hand, inclusion of Option 4 will cost an additional amount each month so that some individual situations may well dictate against it.

Only primary dependents are eligible to have annuities established in their favor. This means wife or husband at *date of retirement,* or children *born and living* at date of retirement and under 18 years of age. Should a person obtain a divorce and remarry prior to retirement, the lawful spouse at date of retirement is eligible—but in case of divorce and remarriage *after* retirement, the second spouse is not eligible. The same rule holds true in case of death of a spouse. Thus in the case of a member who is in a retired status as of 1 November 1953, the term widow or widower will apply only to the lawful spouse on 1 November 1953.

Stepchildren and legally adopted children under 18 years

of age and unmarried (or otherwise eligible through mental or physical incapacity) are considered the same as legitimate children of the retired member.

It may be noted that Option 1 provides for payment to the surviving spouse while Option 2 provides for payments to surviving children. This was done not only to provide for cases where there are no children, or where only children survive—but to give the retired member a choice of creating annuity payments if desired to cover situations in which the dependent widow and dependent child or children may be living in separate households. However, the combined amounts of the annuities may not exceed 50 percent of the amount of the member's reduced retired pay.

Prior to retirement the active member may change, modify or revoke his election to participate in the plan. However, any such change will not become effective until five years have elapsed. No changes can be made after one has retired and has become a contributing member. An active member who may be retired for physical disability after 1 November 1953 and prior to the completion of 18 years' service, may make an election at the time of retirement in order to provide one or more of the annuities under the Options. Anyone who may be missing in action, interned in a neutral country, a prisoner, or beleaguered or besieged and who thus cannot make an election prior to completion of the 18 years of service may make such election within six months after his return to military control.

An option may be chosen even if no beneficiary exists at the time the election is made. Thus a serviceman contemplating matrimony prior to his retirement may properly elect to protect his potential future family. If however his plan fails to materialize and there is actually no immediate family at time of retirement, no participation in the plan is possible; consequently no deductions will be made from his retired pay. But if he should marry *following* retirement, the spouse is not eligible.

Similarly, if all of the member's potential beneficiaries should die before the member's retirement, no payments will be deducted for the fund. In other words, the individual has no immediate family at time of retirement; he therefore will receive full retired pay even though he elected membership in the plan.

Thus from the instances noted above it will be seen that the plan depends entirely upon the status of the member *at time of*

retirement. This means that the person concerned is protected against having to make payments in instances where such deductions could have no possible future benefit. At the same time it means that great care must be exercised in planning since there is no chance of adding beneficiaries *following* retirement.

If a member should revoke an election at any time, he shall not thereafter be permitted to withdraw or modify his revocation—in other words, he cannot reinstate himself under the plan. However, if he should retire within five years after signing a revocation, such an action shall have no effect since, as seen above, no changes may go into effect until five years after the date they were executed.

It should be further noted that a member cannot recover any money paid into the fund (except those members participating in the plan while on the Temporary Disability Retired List, upon return to the active list); the deductions made will never create a cash equity for the participating member. All such factors should be considered and weighed carefully in relation to the individual's particular circumstances.

It is possible to participate in the plan even though the individual may have waived retired pay (as in electing to receive Veterans Administration benefits or under the "dual compensation" provisions forbidding receiving of retired pay up to a certain amount if holding certain Government jobs). Persons in this status are allowed to make payments, direct to the Finance Office administering their pay account, in the amount that would have been subtracted from their retired pay had they chosen to receive that pay. Provisions also are made whereby a spouse or children may take steps to select an option in cases where the member may be determined to be mentally incompetent—but if subsequently he is adjudged mentally competent he may modify or terminate the election within 180 days.

No deduction will be made from active duty pay since the plan does not become operative until retired pay has been awarded. Those not in retired status may modify their election by changing from one option to another, or may change the fraction factor of any option as their changing status may make it desirable. Changes in marital or parental status prior to date of retirement do not constitute modification.

The monthly income to beneficiaries, it should be pointed out, will be subject to income tax as an annuity. However, such pay-

ments are not subject to withholding; therefore the Finance Office making the annuity payment will not withhold the tax. Recipients must handle their own tax responsibilities.

Rates of payment (or of reduction in receipt of retired pay) depend on the age of the member, age of spouse and of the youngest child on date of retirement, and the fraction of the pay that the individual desires to provide for his survivors. Rates also differ for those retired for physical disability reasons —but it should be noted that in many instances the higher rates often will be offset by reductions in income taxes.

A committee of actuaries, experts in study of life expectancy and remarriage rates, spent many days in developing the formulas for computing the rate tables. Their calculations were speeded by Univac, the mechanical computing machine which proved so astonishingly correct in forecasting from a comparatively few figures the mathematical probabilities of the 1952 presidential election. The tables as now fixed will be subject to revision following further experience in the practical working of the plan but any person now retired and having his pay reduced on the basis of existing figures will not be affected by any subsequent adjustments.

The individual may easily determine his own estimated monthly costs, just what his own monthly reduced pay will be, and what will be available for his survivors by consulting the tables provided in Special Regulation 35-1365-1 on the assumption that such figures will be in effect on the date he retires. These are expressed in figures which really are percentages. Based on the Option selected, the member's nearest age at time of retirement, age of spouse and/or children at time of retirement, and the fraction factor (that is one half, one fourth or one eighth) and whether retirement is for disability, the proper cost factor decimal figure is found in the table.

To develop the cost, multiply retirement pay by the figure shown in the table, which will provide cost of participation. Retirement pay less cost then will equal the amount of reduced pay. To determine what the survivors will receive, divide that by 2, or 4, or 8 (depending on whether the individual desires the survivors to receive one half, one fourth or one eighth).

To illustrate, consider the example of a master sergeant retiring for non-disability reasons after 30 years of service. Presume that his age is 55, his wife's age is 49 and there are no children,

and that he has chosen Option 1 and desires to provide for half of his reduced retired pay for his widow when he dies. By consulting the table for Option 1, with the annuity for one half factor, the cost decimal is .1450. The computation will then work out as follows:

Retired Pay	$229.32
Cost Factor .1450	33.25
Reduced Retired Pay	$196.07
Survivor's Pay	98.04

If the retiring sergeant had specified the one quarter factor for his widow, his cost factor would be less—in other words, he would receive a few dollars more each month for as long as he lived, but after his death his widow would receive a quarter of his reduced retired pay. For the one eighth fraction the same rule would apply. From an appraisal of his own circumstances, the individual may determine how much can be taken out of his basic retired pay in order to leave his survivor or survivors a certain assured monthly income. The financial status of the family—living costs, insurance, other investments that may produce income, and other financial factors—should be considered in arriving at a choice of option and of the fraction factor.

Suppose that the same sergeant has selected Options 1 and 4 (which would provide that his payments into the plan would cease should his wife die before him). In this case the cost factor in the table would be .1521. Multiplying the basic retired pay by that cost factor used as a decimal, his cost each month would come to $34.88, leaving his reduced retired pay at $194.44. His widow thus would receive half of that figure or $97.22 per month.

As has been pointed out, the cost factor differs according to the age of the retired person and the age of his wife so that these elements must always be carefully taken into account in figuring the cost to the individual, and in calculating what the survivor will receive. Thus under the first illustration given above, had the wife been the same age as her husband (55) the cost factor would be .1116 instead of .1450.

Again, the cost factor would be different if the same sergeant at age 55, with a wife age 49, were to be retired for reasons of physical disability. In this case the cost factor is .2175. The figures under Option 1 will be:

Retired Pay	$229.32
Cost Factor .2175	49.88
Reduced Retired Pay	$179.44
Survivor's Pay	89.72

In this and similar cases of disability retirement, the cost to the disabled retired person is approximately 50 percent more than in the case of non-disability retirement. However, this greater cost might be offset by income tax exemptions accruing to disabled personnel. In other words, he would have about the same actual amount of cash income since the disability pay is not normally subject to income taxes.

The sergeant in the examples used above obviously would not have elected Options 2 or 3 since he had no children. But suppose that he is a widower with minor children and desires to elect Option 2 in combination with 4. In this case the cost factor is determined by the age of the youngest child. Presume for the sake of illustration that this is 15. Then the cost factor is .0081. His case may be expressed in this manner:

Retired Pay	$229.32
Cost Factor .0081	1.86
Reduced Retired Pay	$227.46
Survivor's Pay	$113.73

The reason for the considerable difference in the cost of an annuity under this plan is obvious. The actuarial figures show that the retired father may be expected to live beyond the time when the youngest child will become ineligible, as compared to his chances of surviving his wife.

Suppose now that the sergeant, age 55, has a wife of 49 and a child or children, the youngest being 15 at the time of his retirement, and that the sergeant chooses Option 3 in combination with 4. Here his cost is computed at .1567 which is just a fraction more than the cost factor of .1521 for Option 1 with 4. Thus for a very small additional cost, a retiring member may provide for his children as well as his spouse.

It must be remembered that the costs change in accordance with the age of the youngest child as well as the wife in cases of election of Options 2 or 3; and also that costs will be greater in cases of disability retirement. From the examples given, the Army member should be able to draw a clearer picture of the manner in which the Act may affect his personal needs and requirements. For specific information concerning exact costs and what the survivors may be assured under each option and under each fractional pay factor, the Finance Officer of various units should be able to supply the desired information.

A-Bomb Training Aid

Major Bernard F. Allen

The simulated A-bomb described in the following article is only one of several types now being tested. As yet none of them meets the Army's training requirements.—*Editor.*

A VIVID FLASH—a mighty roar—a gigantic fireball rising high into the sky—then an immense smoke pillar which slowly takes on the toadstool shape of the typical atomic bomb explosion. Troops in slit trenches feel the searing blast which sets fire to material on the ground between them and the blast.

That has all the attributes of the explosion of an A-bomb but actually it is a scene from the realistic training now being employed to prepare Army troops for radiological warfare. The mock explosion really is just another of the ingenious training aids devised to produce realistic effects.

Making the "baby A-bomb," however, was not exactly the same as preparing a mock-up of a tank engine or even as comparatively simple as using .22 caliber ammunition to provide realistic practice in zeroing-in a large cannon. A good deal of effort and experimentation was required to produce an effect which on first analysis seemed practically unattainable.

MAJOR BERNARD F. ALLEN, Chemical Corps, now Aide de Camp to Lieutenant General A. R. Bolling, Commanding General, Third Army, Fort McPherson, Georgia, was formerly Chemical Officer for the Post and for the 8th Infantry Division at Fort Jackson, South Carolina.

With the advent of the atomic bomb and weapons such as the 280-mm. cannon capable of firing atomic artillery shells, an obvious need arose for training troops, indoctrinating them as to the effect of such weapons, demonstrating their potential and at the same time teaching protection against them.

But how to produce the realistic effects of atomic weapons for these purposes was a difficult problem. I had seen the A-bomb tests at Yucca Flats, Nevada, where I had observed the reaction of our troops to the mighty explosion. Even then it was apparent that there was a very real need for an inexpensive imitation bomb to train troops in radiological warfare.

Of course we could tell the trainees all about it—even show them motion pictures—but such descriptions would be far short of the realism so desirable in troop training. Further, this would not dispel the fear of the weapon and give an actual, visual comprehension of its limitations.

Practice with the real thing, as at Exercise Desert Rock, was obviously not feasible at scattered training camps. It would be entirely too costly and too hazardous to give all troops practical experience by detonating a real A-bomb or even an atomic shell. And it would be far beyond the resources of ordinary facilities at training camps to simulate such an explosive effect .

Upon my return to Fort Jackson, I began research and experiments to produce an explosion that would throw off considerable heat, generate a tremendous flash, throw up the typical smoke cloud with the mushroom effect—in other words, to provide all the characteristics of an A-bomb or an atomic warhead delivered by artillery, at a minimum cost and practical for general use.

I procured the assistance of two enlisted men—Privates First Class Charles Gunthorpe and Joseph MacMillan—and together we worked out chemical formulae which had potentialities of providing an inexpensive explosive effect that would resemble in all appearances a mighty A-bomb blast. We used only ingredients that were available from ammunition allowances authorized for training units so that the "baby A-bomb" could be worked into the training schedule at no additional expense.

We worked for several weeks on our problem and set off a series of blasts—but despite all of our calculations and formulas which on paper should have given the desired result, none of them was precisely what we were seeking. Finally on the fifth

attempt there was a vivid flash, a mighty roar and a gigantic fireball which rose high into the sky, accompanied by a column of thick smoke. Then the fire died out and the immense smoke pillar slowly took on the distinctive mushroom shape and floated some thousand feet in the air for about five minutes.

At last we had it! There were all of the characteristics of the A-bomb, awe-inspiring enough to give the same effect to the troops as though they had been present at an actual explosion —yet devoid of the radiation thrown off by the real thing. Besides it was very inexpensive to produce.

Materials used in making the simulated A-bomb are TNT, napalm, gasoline, waste oil, acid, white phosphorus hand grenades, smoke pots (contents only) and prima cord, all of which are authorized for training units. The TNT provides the big boom and explosive effect. The fireball is produced by the jellied gasoline and white phosphorus. Ordinary gasoline gives the flash of light while the smoke is produced by the acid which creates a dense white fume when it comes in contact with air. The mushrooming cloud effect is caused by the waste oil.

Once we had the key to the big blast, we set to work to make a smaller bomb to be used in the training of small units. Very soon both large and small bombs were being used in training 8th Infantry Division troops. The formulas now have been given to other units within the Third Army and the "baby A-bomb" is part of the training program there.

As troops undergo training in defense against radiological warfare, the explosion of the simulated A-bomb provides the culminating touch of realism. It leaves a vivid impression on them. Before the bomb is set off, trainees receive lectures on the effects, capabilities and limitations of various types of atomic explosions. They are given demonstrations on how best to protect themselves against attack.

For realism the troops are seated about two hundred yards from "ground zero" in order that they may feel the blast, yet be far enough away to be entirely safe. Between them and the explosion pit are deep fox holes, filled with combustible material. Other inflammables are placed on the ground with no protection. When the blast occurs the exposed material is set afire by the heat but that in the foxholes does not ignite. This graphically illustrates the protection gained by interposing some obstacle between the individual and the blast. It makes

every trainee a firm believer that "foxholes aren't just a waste of time and effort."

In preparing for the detonation, a round hole is dug about three to three and one-half feet in depth, with a six inch deep ledge all the way around. A 25-pound block of TNT is wrapped in prima cord and placed in the bottom of the hole with the cord extending about ten feet from the side of the ledge. The napalm—20 pounds of it—and other ingredients are placed in a bag from a field impregnating set, together with two white phosphorus grenades with handles taped and safety pins in place. The grenades also are wrapped in prima cord. This bag is tied securely and placed on top of the TNT. The leads then are connected with a blasting machine which sets off the explosion at a given signal.

The smaller bomb uses the same materials except for the TNT, and of course smaller amounts of the various ingredients. All personnel working with these explosives and inflammables must understand and observe safety precautions outlined in Field Manual 5-25. Lead wires to the detonators must never be connected to the blasting machines until all personnel have retired to safety areas. As a further precaution, the safety pins must not be removed from the grenades which are used as igniters.

By varying the amounts of the ingredients in the smaller bomb, corresponding degrees of noise and flash may be produced, depending upon the result desired. Thus the effects of atomic artillery may be produced—or any other effect up to a major atomic bomb explosion.

Military Police Training In Bavaria

Lieutenant Colonel Charles W. Lee

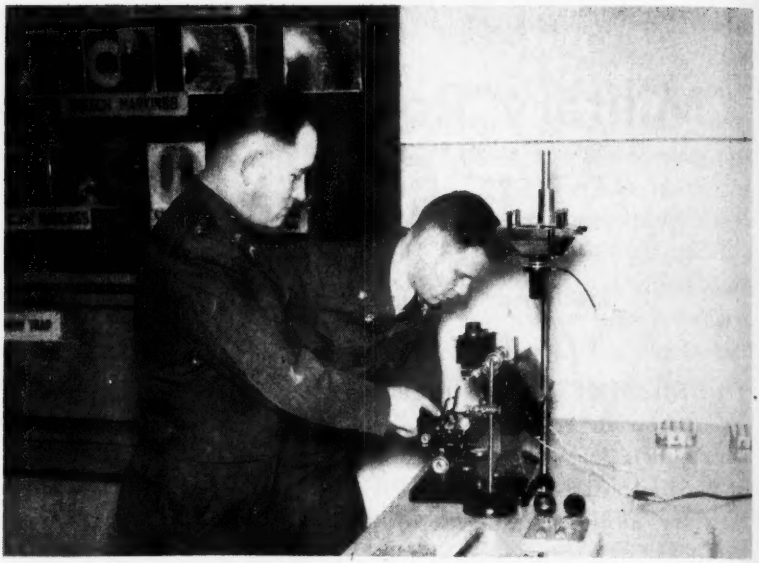
OBERAMMERGAU, the picturesque German village in the Bavarian Alps, is world-renowned for the Passion Play which its citizens present every ten years. In the American Zone of Germany it is almost equally well known as the site of the Military Police School of the United States Army, Europe (USAREUR) Command.

Ever since 1946 the 7712th USAREUR Intelligence and Military Police School has been recognized for its substantial and continuing contribution to law enforcement throughout one-fourth of Germany and in other European countries where United States troops are stationed. More than fourteen thousand hand-picked men have taken the various courses.

Up to a point, the School at Oberammergau is the European counterpart of the stateside Military Police School at the Provost Marshal General Center, Camp Gordon, Georgia. (See "Training for Military Policemen," March 1953 DIGEST). However its teachings must reflect the additional fact that the School, as well as the Command it serves, is located in foreign territory and is faced with a host of special problems. Beyond the customary duties of military police, such service in Germany entails language differences, narcotics and currency smuggling, refugees, border controls and black marketing. Of necessity special courses must be presented to train students in the many questions peculiar to post-war Europe.

The School is the major establishment in the European Command for military police instruction, training and research. Its students are drawn from Military Police organizations and from

LIEUTENANT COLONEL CHARLES W. LEE, Military Police Corps, is Chief of the Military Police Branch, 7712th Intelligence and Military Police School, USAREUR.



Bullet markings are examined microscopically as part of the ballistics training in the Criminal Investigator's course. U. S. Army Photograph

Air Force and Navy students are taught fingerprinting techniques at USAREUR Military Police School. U. S. Army Photograph

line units in USAREUR, as well as from American installations in Austria, England, France, Trieste and North Africa. Although most of the students are Army members, the Air Force is usually well represented in each class. Navy and foreign personnel also are assigned from time to time.

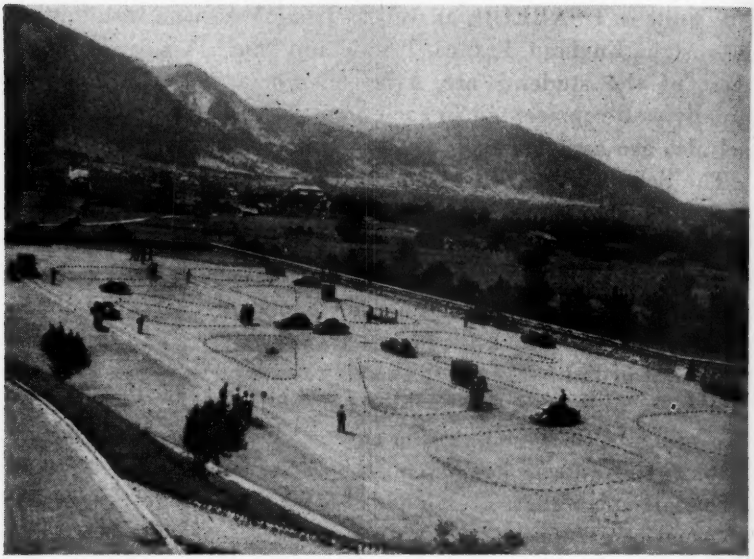
The School is housed in what was formerly a German Army *kaserne* located on the side of a mountain. After American troops had overrun this area near the end of World War II, it was found that the *kaserne* had been used by Messerschmitt for drafting plans and conducting experimental work on jet aircraft engines. The bulk of the work was done in the twenty-two miles of lighted air-conditioned caves dug into Laber Mountain directly behind the pistol range now used by military police students. So well were the caves concealed and so effectively were the approaches camouflaged that, despite constant air reconnaissance, they remained undiscovered until the arrival of American troops.

The School's mission is instructing and training military police and other designated personnel of the American forces in and around Europe. In addition to the basic military police instruction, other courses taught are Desk Sergeant, Criminal Investigator and Military Police Officer (Refresher), Crime Prevention Survey, Guardhouse Administration and any other courses deemed necessary by the Provost Marshal, USAREUR.

For enlisted men the regular course runs five weeks or 220 hours. Instruction includes military training, tactics, military law, police enforcement, traffic control and physical conditioning, with time allotted also for Information and Education, field problems, examinations and critiques. Each course is broken down into sub-divisions. For example, military training is divided into individual training, map reading, first aid and communications; tactics includes riot control, general installation security, field problems and combat tactics.

For officers, previous military police training is augmented by a refresher course conducted four times yearly. Like the enlisted training, it covers police work, enforcement, criminal investigation and military law. A highlight of this two-week course is an all-day field trip to the USAREUR Rehabilitation Center at nearby Kaufbeuren. Here Command confinement facilities and operations are studied.

In the military training portion of all courses, essentials are



On simulated streets, trainees are judged on their ability to keep traffic rolling smoothly. U. S. Army Photograph

An instructor explains proper methods of conducting traffic accident investigations. U. S. Army Photograph

taught with emphasis on the latest doctrines and requirements for field duty. Included are first aid classes in combat and noncombat wounds, individual health and sanitation, transportation of the wounded, and artificial respiration. Fundamentals of military police communications, stressing the use of radio in combat and operational situations, are offered as part of the communications instruction. Emphasis is placed on map reading and use of the compass, and detailed instruction is given in the Universal Transverse Mercator grid system, as well as direction, orientation and location, with or without the compass.

The greatest number of hours is allocated to tactics. The student is first introduced to some of the background causes of riots. Next he is taught crowd and mob psychology and finally, the tactics and formations employed against rioters. The combat tactics phase includes instruction in the handling of stragglers and prisoners of war, and in combat security and refugee control. Installation security is studied to acquaint the student with the importance of this factor in the modern army. To emphasize the lessons and theory taught in the classroom, practice sessions are held in the field. Here the student becomes proficient in handling the difficult jobs he will be called upon to perform.

Important to military policemen is an understanding of military law. The course covering fundamentals of this subject and the administration of military justice, consists of discussion groups and lectures utilizing the Uniform Code of Military Justice as a textbook. Emphasis is placed upon court procedures, court conduct, the handling of witnesses and the duties of military court members.

Under enforcement, which covers 41 class hours, police operations, administration, and doctrines and techniques, are studied. These topics cover the evolution of the Military Police Corps, as well as conduct, liaison and terminology, management of confinement facilities, town patrol planning, techniques of foot and motor patrols, apprehension, search and seizure, and duties on railroad trains.

During the enforcement course, students receive a thorough grounding in the rights of individuals and the limitations on police authority. Practical exercises in reporting and handling incidents and in the use of proper forms are important aspects.

Traffic control is one of the continuing problems of police

forces anywhere. The Military Police School devotes 24 hours to theoretical principles and actual handling of such problems in practical exercises. The first phase consists of 14 classroom hours in control techniques, accident investigation, traffic signs, schedules, emergencies, patrols, escorts, route classification and motor marches. The field phase is handled on the parade ground where vehicles operate in a miniature "traffic town" laid out with simulated streets and intersections. This training area provides the student with on-the-job experience in traffic direction. Trainees are judged on their ability to keep the traffic rolling smoothly. To present the problem as realistically as possible, civilian vehicles are interspersed with the military types.

Military police are on duty in an area covering fifty thousand square miles in Germany--consisting of the entire United States Zone, the United States Sector in West Berlin and, in conjunction with French authorities, in sectors of the French Occupation Zone where U. S. Army and Air Force units are located. In addition, military police also serve in some areas of England and Italy. They necessarily work closely with state and municipal police staffs and in certain situations, MP's ride town patrols with local policemen. In Germany, a local police representative is present at all central Military Police stations to provide instant liaison between the two forces. A direct telephone line connects the station and German police headquarters to insure that men from both forces can be dispatched quickly to scenes calling for joint action.

The Police Doctrines and Techniques course examines European police systems to acquaint the students with the need for close liaison, and to facilitate understanding between United States Army and European law enforcement agencies.

Military Police work in Europe requires special units, among them the 7751st Military Police Customs Unit which is on duty at twenty-two border crossing points and at airports. The Unit has the mission of controlling smuggling in and out of USAREUR areas. Its members have been taught the subterfuges of the smuggler and remain constantly alert to discourage the practice and to apprehend those engaged in it. (See "Front Lines in the Cold War," August 1952 DIGEST.)

Not long ago, USAREUR criminal investigators succeeded in breaking up a black market ring which purchased coffee from Russian sources in East Germany for disposal in West Germany.

A student searches a "suspect" according to technique taught in the basic Military Police course. U. S. Army Photograph

Confiscated were 54,000 pounds of green coffee beans as well as diamond rings, bracelets and necklaces, gold bullion, English pound notes, United States gold coins, two sedans, two trucks and four trailers, and $4900 in United States currency intended as bribe money to "protect" the coffee shipment from Berlin to Frankfurt. The jewelry and currency were discovered when agents raided the home of one of the eight smuggler-black marketer operators involved. Value of the confiscated property was set at $150,000.

Military Police in Europe frequently are required to recognize distinctive handwriting, printing and typewriting on forged or altered passes, ration and identification cards, gasoline and oil coupons, and currency, all of which from time to time appear in many places in Europe.

Selected military police personnel attend the Criminal Investigation Course, designed to train officers as supervisors and warrant officers and enlisted men as investigators. Intensive training is given in investigative techniques, laboratory methods, police enforcement, military law, weapons and general subjects. Surveillance procedures come in for special attention. When classroom work is completed, students are taken to a nearby

community where they are assigned a pre-planned mission. After receiving a description of an individual (usually a German employee of the School) and informed of his approximate whereabouts, the students are on their own. Their mission is to find the individual, keep him under surveillance and to file a report of his actions during the day.

The general military police course culminates in an exercise calculated to test student skills in dealing with an "actual" criminal situation. In Oberammergau and throughout the nearby area, men and women employees of the School are utilized to simulate crimes of murder, robbery and other felonies. Teams of investigators then are assigned to work on these specific cases alone, usually throughout the night and into the next day.

After completing the course, the student is fully aware that he cannot attempt to compensate for any lack of confidence or knowledge by a show of toughness. He realizes that the School has taught him how to develop essential skills, and that the use of force is justified only when all other measures fail. When the student returns to his unit he is prepared to carry out his duties with increased efficiency and confidence.

A little known story of how George Washington regarded the importance of military manpower was told recently by Chief of Staff General Matthew B. Ridgway. Speaking before a reunion of the 82d Airborne Division Association, he recounted the tale of what happened when General Washington was presiding over the Constitutional Convention in Philadelphia—

"One of the members made a motion to restrict the standing army to a strength of no more than 5000 men at any one time. Since he was the chairman, Washington could not make a motion himself, so he turned to another member and whispered: 'Amend that motion to provide that no foreign enemy shall attack the United States at any time with more than 3000 troops'!"

Graduate Schooling For Army Officers

A. B. Butts

BASIC to the success of its mission, the Army must insure that its personnel are highly trained in the varied military specialties required in the operation of complicated weapons of modern warfare. Not so obvious, however, is the fact that the Army must also have available a pool of specially trained personnel who have both an extensive military grounding and a firm grasp of certain technical skills generally considered to be mainly in the civilian realm.

It is proper, in fact necessary, that the bulk of fundamental research, as in the field of nuclear physics for example, be accomplished by civilian scientists. Individuals of outstanding technical proficiency thus can conduct vital study as a continuing, uninterrupted effort. Men who are recognized leaders in their respective fields, with years of experience, are appropriately called upon to provide the best scientific brain power for the research upon which the security of our Nation in a large measure will ultimately depend.

From the military standpoint, however, such activity might forever remain in the realm of the theoretical were it not that professional military men, working alongside the technical specialists, understand not only the language of the scientist, but also the intricacies of the weapons systems and military tactics that the research will serve to improve.

Out of this need for qualified officers to work with civilian scientists and other specialists, the Army's Civil Schooling program was born. This program sends selected Regular Army officers to civilian universities for graduate schooling to qualify

DR. A. B. BUTTS is Educational Adviser, Career Management Division, Office of the Adjutant General, Department of the Army. He formerly served in the Judge Advocate General's Corps of the Army Reserve.

them in necessary skills. With but few exceptions they earn higher academic degrees in the process.

Advancement of research, however, is not the only purpose of such schooling. Due to the extensive nature of United States international commitments, it also is frequently necessary to train selected officers in the language and customs of nations and peoples who are of vital importance in the over-all security planning of the free world. Other officers must be capable of properly representing the Army as staff members in the many military attaché posts maintained all over the globe.

Prior to June 1946 the civil schooling program for Regular Army officers was a limited one, applicable in the main to a relatively small number of officers of the Army Medical Service, Corps of Engineers, Judge Advocate General's Corps, Ordnance Corps, Quartermaster Corps and Signal Corps. In addition, the Army sent to universities for further training certain officers who were scheduled to be assigned as instructors at the United States Military Academy at West Point.

An expanded graduate-level civil schooling program was established for combat arms officers in June 1946. At that time 164 officers of Armor, Artillery and Infantry were enrolled in colleges for graduate work on the master's degree level.

Since then, more than two thousand officers in grades from first lieutenant to colonel—approximately eight hundred of these from the combat arms—have been enrolled in such courses. Over 90 percent acquired masters' degrees.

At present, 433 officers are participating—256 from the Technical and Administrative Services, 119 from the combat arms, and 58 from the Army Medical Service. They attend forty-seven American and four foreign universities.

As a rule, one student officer is enrolled at each of the four foreign universities. These include Heidelberg University for German language studies; the Sorbonne for French; the University of Brazil for Portuguese; and the University of Madrid for Spanish. After one year of training in the language, these officers are assigned for a period of three years as instructors at West Point. Courses at Stateside universities cover various aspects of the physical and social sciences, public administration, international relations, journalism, physical education and psychology. (See chart, page 46.)

To be eligible for graduate training, a candidate from the

combat arms must be an officer of the Regular Army, preferably not over 36 years of age, although waivers may be granted in exceptional cases. He must hold a bachelor's degree or have substantially satisfied the requirements for it. If accepted, he must agree to serve a minimum of four years after the completion of his graduate studies. Separate special regulations cover requirements for the Technical and Administrative Services.

Applications from combat arms officers are filed in the Civil Schools Section, Education and Specialist Training Branch, Career Management Division, Office of The Adjutant General. There, one or more times each year, qualifications are considered and selections are made on a competitive basis.

Normally those selected receive schooling only on the master's degree level but exceptional individuals, on the recommendation of university authorities, are frequently permitted to complete work for the Doctor of Philosophy degree. At present, about one hundred and forty Regular Army officers have acquired this degree. Virtually all have completed this work since the inauguration of the expanded graduate civil schooling program. In each case, the Army has approved such recommendations for advanced study only when an officer was needed to fill a staff assignment requiring prior training on the doctorate level in one of the following fields—chemistry, civil engineering, communications engineering, electronics, guided missiles, international relations, metallurgy, mining engineering, nuclear physics, personnel administration, psychology or public administration.

In most cases, universities may be entered in September, February or June—whenever the officer is declared available. All regular tuition and university fees are paid under Army contract with the university, and in addition, up to $80 reimbursement per fiscal year is allowed each officer for the purchase of textbooks and expendable supplies. Where a thesis is required, reimbursement up to $50 is allowed to cover costs of typing and other expenses incurred in its preparation.

Upon completion of his courses, each officer is required to serve in the field of his specialized training for a period of approximately three years, either on the staff of the Department of the Army, or of headquarters of continental or oversea Armies, or major commands and installations, including the staff and faculty of the United States Military Academy. Upon com-

pleting this utilization tour, he returns to the normal career pattern of his branch, unless he applies for an additional assignment in his field of specialization and his application is given branch approval. Unless an officer so desires, participation in the Civil Schooling program does not automatically entail continued assignment as a specialist, although from time to time he may again be given duties in his field of training.

The following table indicates the areas of specialized training currently open to combat arms officers, and the duty assignments which normally follow:

FIELD OF STUDY AND INSTITUTION	POST-SCHOOLING ASSIGNMENT (CONTEMPLATED)
PHYSICAL SCIENCES	
Aeronautical Engineering: Georgia Institute of Technology Purdue University	Army General Staff (G4); Office, Chief of Army Field Forces; Army Field Forces Board No. 1
Automotive or Mechanical Engineering: Georgia Institute of Technology University of Michigan Purdue University	Army General Staff (G4); Office, Chief of Army Field Forces; Army Field Forces Boards No. 1 or 2; Artillery School; Armored School; Infantry School; United States Military Academy; Oversea Commands
Chemistry: Columbia University University of Florida	United States Military Academy
Electronics or Communications Engineering: Georgia Institute of Technology University of Pennsylvania	Office of the Secretary of Defense; Army General Staff (G3 or G4); Office, Chief of Army Field Forces; Army Field Forces Boards No. 1, 2 or 4; Artillery School; Armored School; Infantry School; Armed Forces Special Weapons Project; Arctic Test Branch; Antiaircraft and Guided Missile Center; Antiaircraft Artillery Commands; Oversea Commands
Guided Missiles: Johns Hopkins University University of Southern California	Office of the Secretary of Defense; Army General Staff (G2, G3 or G4); Office, Chief of Army Field Forces; Army Field Forces Boards No. 1 or 4; Artillery School; Antiaircraft and Guided Missile Center
Mathematics: Columbia University	United States Military Academy

Meteorology: New York University	Army Field Forces Board No. 1; Artillery School; Antiaircraft and Guided Missile Center
Nuclear Physics: University of Alabama Columbia University University of Tennessee University of Virginia	Office of the Secretary of Defense; Army General Staff (G2, G3 or G4); Office, Chief of Army Field Forces; Army Field Forces Boards No. 1 or 4; Armed Forces Special Weapons Project; United States Military Academy;
Optics: University of Rochester	Army Field Forces Board No. 2
Statistics: Columbia University	Army General Staff (G4); Army Comptroller; Artillery School

SOCIAL SCIENCES

Administration

Business Administration: University of Alabama Harvard University University of Mississippi University of Oklahoma University of Pennsylvania Leland Stanford University	Office of the Secretary of Defense; Army General Staff (G4); Army Comptroller; Army Special Staff (IG); Infantry School; Staff, Continental Armies; Oversea Commands
Personnel Administration: Ohio State University University of Texas	Army General Staff (G1); Army General School; Oversea Commands
Public Administration: University of Alabama Harvard University	Army General Staff (G3); United States Military Academy
Comptrollership: Syracuse University	Army General Staff (G4); Army Comptroller; Armored School; Staff, Continental Armies; major continental United States installations; Oversea Commands
Economics: Harvard University Vanderbilt University	Office of the Secretary of Defense; General Staff (G2); Army Comptroller; United States Military Academy; Oversea Commands
Educational Administration: University of Virginia	Office of Armed Forces Information and Education; Artillery School; Infantry School; Army Information School; Antiaircraft and Guided Missile Center; Oversea Commands

Languages

English: Columbia University University of Pennsylvania	United States Military Academy
Foreign Languages: Heidelberg University (German) Sorbonne (French) University of Brazil (Portuguese) University of Madrid (Spanish)	United States Military Academy

International Relations

Geography: University of Illinois University of Oklahoma	Office of the Secretary of Defense; Army General Staff (G2 or G4)
International Relations: Columbia University Georgetown University Princeton University Tulane University University of Virginia Yale University	Office of the Secretary of Defense; Army General Staff (G2, G3 or G4); Army Comptroller; Office, Chief of Information; United States Military Academy; Army Information School; Oversea Commands
International Relations (Psychological Warfare): Columbia University Tulane University	Office, Chief of Psychological Warfare; Office, Chief of Army Field Forces; Psywar Center; Staff, Continental Armies; Oversea Commands

Other

Journalism: Columbia University University of Florida University of Missouri University of Wisconsin	Office of the Secretary of Defense; Office, Chief of Army Field Forces; Command and General Staff College; Office, Chief of Information; Infantry School; Army Information School; Staff, Continental Armies; United States Military Academy; Oversea Commands
Physical Education: Springfield College (Mass.)	United States Military Academy
Psychology and Human Development: University of Chicago University of Tennessee Tulane University Vanderbilt University	Army General Staff (G1); Office, Chief of Army Field Forces; United States Military Academy; Armored School; Infantry School; Human Research Units No. 1, 2, or 3; Oversea Commands

Morale Benefits From Post Exchange Income

Oscar S. Glasberg

A MORALE PROGRAM, world-wide in concept and as varied as the colors in a prism, is the story in a nutshell of how the United States Army utilizes to the fullest extent the funds generated by Exchanges everywhere. Spreading out fan-like from the Pentagon in Washington to every corner of the globe, the well-planned and well-executed recreation program of the Army provides a variety of off-duty activities in quality and quantity comparable to the best available in progressive American communities.

The entire effort, of course, is not left to chance but must be well laid out. Equipment and facilities must be adequate; the people who run the program must be selected for their jobs because of previous education and experience, plus their ability to organize and direct recreational activities.

Most of this is made possible for the millions of men and women in the Army by the profits derived from the operation of Exchanges wherever American troops are stationed. The vast morale program of the Army includes sports, libraries, service clubs, hobby crafts, music, soldier shows, package shows, professional entertainment, and Special Services units. Virtually all financial support comes from the Exchanges.

Libraries. The Army earnestly seeks to furnish its men and women in uniform with library service comparable to that provided by the best civilian libraries. At Army installations throughout the world there are over 540 libraries, 600 small unit deposit collections, scores of bookmobiles. At the height

---

OSCAR S. GLASBERG is Editor, Post Exchange *Magazine,*

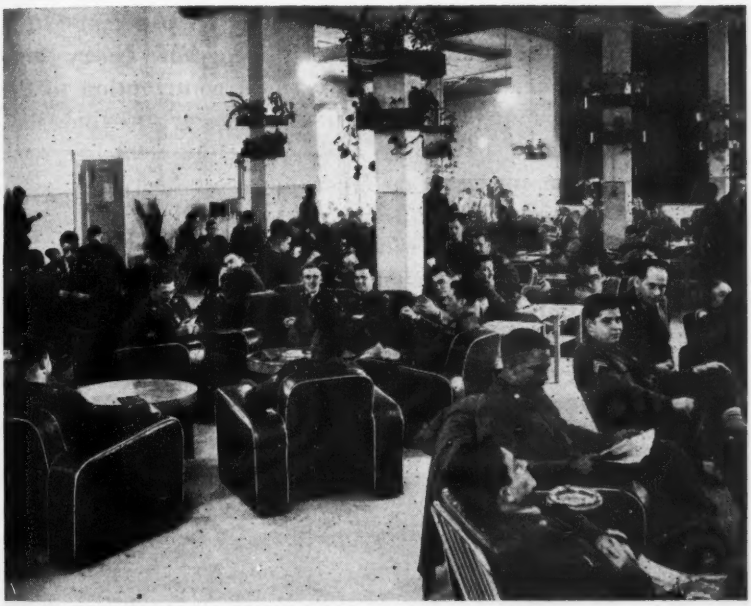
of the Korean conflict, some 240,000 books and approximately 364,000 individual magazines were provided monthly for distribution to units in Korea alone.

No matter where they may be stationed, American soldiers or Wacs are provided with library resources for their information, education and recreation. One of the most popular features of many Army libraries is the music room which provides a varied selection of classical and semi-classical records for the serviceman's listening pleasure. Other activities include discussion groups such as the Great Books Program, children's collections, and the Hospital Program which distributes books to the bedside or wards of hospitalized personnel. It is interesting to note that in the European Command alone, more than 1,500,000 books were circulated during the first eight months of 1953 and that during the same period, visits to libraries exceeded 3,600,000.

A portable library brings recreational reading matter to a hospitalized soldier. U. S. Army Photograph

Service Clubs. Service clubs, comfortably furnished and equipped, provide a friendly, homelike atmosphere and offer wholesome social and recreational activities for off-duty personnel. Their diversified programs of morale-building include

dances, parties, introductory crafts, games and tournaments, soldier shows, song-fests, orchestras, writing facilities, guided tours, and others. Such clubs often maintain "clubmobiles"—these contain small games, paper-bound books, records and record players and the like for troops on maneuvers, in small outposts, or in forward combat areas.



Service clubs are a haven for soldiers off duty. U. S. Army Photograph

Sports. The objective of the Army is to have every soldier and Wac take part in recreational activities during off-duty time. On the tournament level, there is baseball, basketball, volleyball, softball, boxing, golf, tennis, and bowling. Football and touch football are played as team sports throughout every Army command in the United States and overseas. There also are provisions for participation in billiards, table tennis, weight-lifting, gymnastics, tumbling, judo, squash, handball, wrestling, fishing, skeet shooting, rifle marksmanship, horseshoes, badminton, swimming and diving, hunting, track and field, skating, skiing and a host of others.

In the European Command, the sports program consists of 59 baseball teams, 57 football teams, 75 golf teams, 560 soccer teams, 25 skiing teams, 1975 softball teams, 70 tennis teams,

1550 touch football teams, 1685 basketball teams, and 1200 volley-ball teams—all in league play. United States Army, Europe estimates that about 80 per cent of all military personnel engage in some phase of its athletic program. Bowling alone averages 4,800,000 lines per year. And spectatorwise, the European program provides entertainment for an estimated seven million persons throughout the entire sports year.

Exchange income finances approximately 88 per cent of the Army's European Command athletic program. Every item sold in an Exchange makes its own small contribution to the annual operating budget for athletics. In this way, the thousands of athletic uniforms, balls, bats and other equipment necessary to the conduct of the program are made available. It is doubtful that funds from any business enterprise were ever used more beneficially than are those from the vast network which makes up the European Exchange System. And the same holds true for recreation programs in the United States Far East Command and elsewhere around the world.

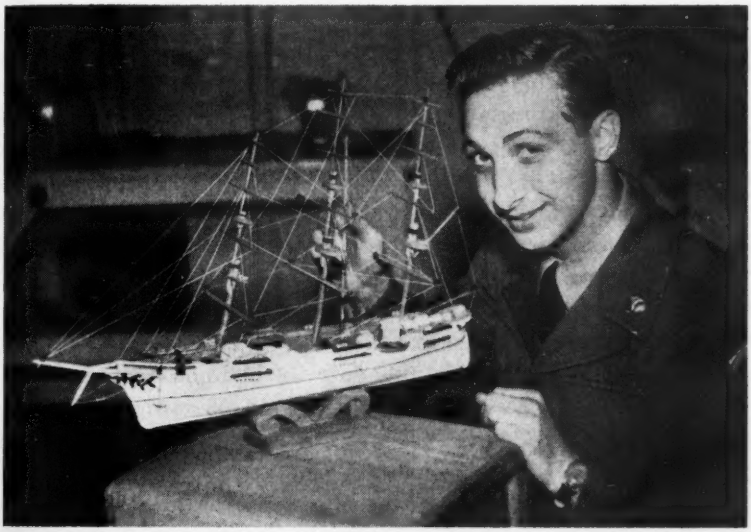
Soccer is one of the many sports offered. U. S. Army Photograph

Crafts. The exceptional crafts program of the Army, worldwide in scope, provides opportunities to develop morale, skills and proficiency by making it possible for service people to participate in constructive activities during off-duty time. Some

of these include auto repair, ceramics, drawing, leathercraft, metal work, jewelry making, model building, plastics, woodwork, painting, photography, sculpture and weaving.

The European Command notes that its crafts program includes the maintenance of 85 craft shops and 113 photo laboratories, used each month by approximately 150,000 soldiers.

Army-wide and theater-wide crafts, arts, and photography contests spur interest in these programs and help to develop competitive skills among personnel.



Morale and skills are developed by varied crafts. U. S. Army Photograph

Entertainment. Exchange-derived funds make available soldier music, soldier shows, package shows, professional entertainment and the like. The musical program includes vocal, instrumental and listening activities. Individual commands conduct their own singing competitions, and the first All-Army Soldier Singing Contest was staged in 1952. The second such contest has been scheduled for January 1955.

Instrumental music opportunities range from a country and western combo to a full-sized symphony orchestra. Dance bands play for dances, soldier shows and concerts.

Soldiers and Wacs are encouraged to participate during off-duty hours in soldier-planned and soldier-produced shows. These competently directed productions include formal and

informal types of shows. Supplies and equipment are provided for costumes, scenery, sound effects, etc. Package shows consist of live, amateur or professional theatricals or music attractions produced elsewhere and brought intact to Army installations to perform for troops.

The Army's entertainment program is designed to contribute to the stimulation, development and maintenance of the mental fitness and well-being of personnel.

Leave Activities. The soldier's love for travel, particularly in oversea areas, is everywhere apparent. Accordingly Special Services organizations in oversea commands have arranged for soldier tours to help utilize passes and leaves to the best advantage and at the least possible cost. Arrangements are made with commercial agencies for low-priced tours. Information booths with a variety of travel folders and pictures are maintained in service clubs. And the clubs themselves often promote trips, usually of one day duration. In addition, oversea commands customarily operate their own leave and rest centers which are available to all personnel.

Thus the Army's Recreation Program—sports, crafts, entertainment, leave activities, libraries, service clubs—is doing everything possible to provide the best in planned recreation for the soldiers' and Wacs' leisure time. It is encouraging them to develop talents and skills for their own enjoyment, to take advantage of the opportunity to broaden their interests and knowledge by travel, and to become more mature and responsible citizens by active participation in a variety of programs provided for their benefit and enjoyment.

Without the financial help rendered by the world-wide Exchange system, the story would be entirely different.

Portable Piers And Packaged Ports

Lieutenant Robin R. Forsberg

MILITARY STRATEGISTS have long recognized that one of the principal bottlenecks in logistical supply is the ship-to-shore operation. During World War II and since, many types of shallow draft or amphibious vehicles were developed in an effort to solve this problem, but they proved unsatisfactory due to weight, bulk, time required for installation, or for other reasons.

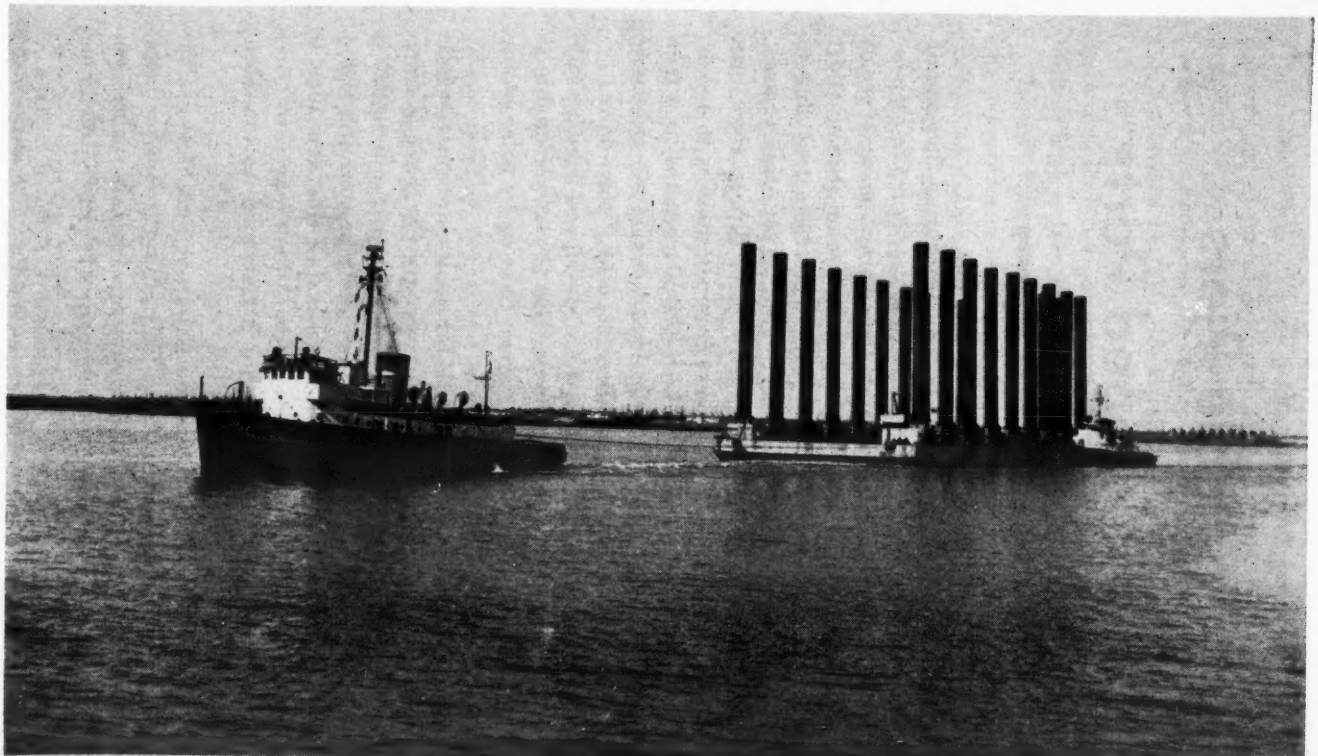
What was needed was a stationary pier. But to erect one, even under normal conditions, takes from six months to a year. Moreover, exclusive of the time factor, a pier erected as a temporary installation would be difficult to salvage, too expensive to abandon, and almost impossible to rebuild if torn down.

Several types of floating piers were developed which could be rapidly erected and easily reused. But they were unable to withstand the strain imposed by a heavy sea or by a large ship tying up alongside.

Then in 1949, one of several ideas for a self-elevating platform was developed by the DeLong Engineering Company of New York. In 1950 an experimental model was built and tested in the Gulf of Mexico. The Army immediately became interested. Since then it has been further investigating this new idea in engineering design and construction—one which may revolutionize Army dock building and permit a task force to tow along its own dock, pier or wharf facilities.

The 79th Engineer Construction Group at Fort Belvoir, Virginia, is administratively in charge of training troops for installation of this type of pier. A detachment of highly trained personnel from the 49th Engineer Company (Depot Maintenance)

SECOND LIEUTENANT ROBIN R. FORSBERG, Corps of Engineers, is Commanding Officer, Engineer Port Construction Unit, 79th Engineer Construction Group, Fort Belvoir, Virginia.



Capable of being towed thousands of miles, the DeLong pier provides dock facilities wherever needed. U. S. Army Photograph

conducts the training of port construction personnel in its use. Most of the instructors originally were assigned to the project in Orange, Texas, where the structure was built. They accompanied it to Norfolk, Virginia, for testing and then on to the Engineer Center at Fort Belvoir where four power launches moved the 250x60-foot structure into its present position. The barge part of the pier alone weighs 803 tons, but the addition of caissons, crane and deck equipment brings the total to 1844 tons.

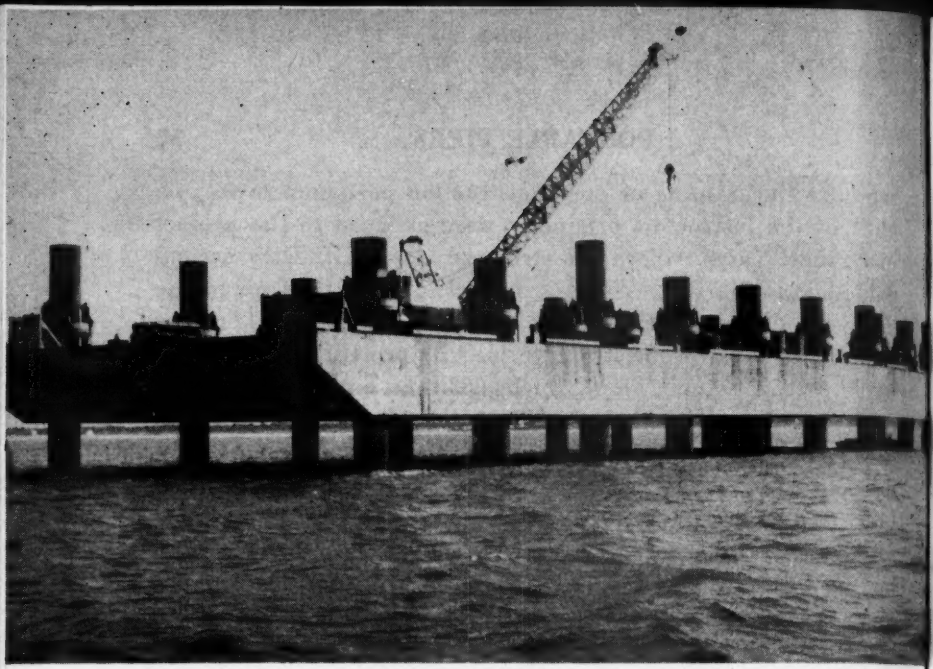
Although the versatile steel giant appears to be clumsy and unwieldy at first glance, it can be moved quickly thousands of miles by tugboat and erected in a new location. The normal time for constructing an ordinary pier is from six months to a year, but by use of the DeLong development this time may be cut down to a minimum of three days or a maximum of two weeks, depending on conditions. The prefabricated unit may well be instrumental in the rapid construction of ports of debarkation anywhere in the world.

One pier has already been successfully installed for iron-ore shipping operations in Venezuela after being towed three thousand miles; two others were placed in operation by the Army Engineers as a permanent dock at Thule, Greenland, nearly five thousand miles from their point of origin in Texas; and two at the Military Port of Whittier, Alaska, replace the wooden pier which was destroyed by fire in June 1953. These last barges were towed from their East Coast storage areas through the Panama Canal and delivered at Whittier that October. Their successful use there and at Thule substantiated the decision of the Army Transportation Corps to have on hand "Packaged Ports," consisting of five of the platform barges, for delivery to any part of the world in event of emergency.

The pier's mobility and its power to sink its own piles and raise itself out of the water to any desired level are salient selling points, so far as the Army is concerned. Another is the ability to lower the erected pier, pull up the caissons and move to another location in a short time.

The Army has attempted to standardize various size units into two package ports. The first is a pier made up of four sections 250x60x10 feet each, which give a working surface of 60,000 square feet. Another section 427x90x15 feet provides an additional area of 38,430 square feet. These sections can be assembled in such a manner as to meet most local requirements. Thus the

Capable of being towed thousands of miles, the DeLong pier provides dock facilities wherever needed. U. S. Army Photograph



Clear of the water, the DeLong pier is shown supported by caissons held by mechanical grippers. U. S. Army Photograph

sections may be attached to each other to form either a long 1427-foot pier, a U-shaped pier or any other combination—depending upon the need in that particular locale. This package port, with an adequate crew working around-the-clock, can be erected in approximately one week, conditions being favorable.

The other experimental package port consists of two 300x90x 13-foot sections (54,000 square feet) built to form a sea island linked to shore by means of an overhead tramway. This type of port is used where shallow water extends out for a considerable distance, or where the shore is lined with cliffs. Small 45x56-foot platforms serve as bases for the tramway towers.

Basically the pier is no more than a barge with large holes—called deck wells—along the edges of the deck. The barge is divided into watertight compartments which can store water or fuel. On the 300-foot section, they may be used for tools, spare parts or miscellaneous storage.

Caissons 6 feet in diameter, 100 feet long, made of ¾ inch steel, and weighing 28.5 long tons are inserted through the deck wells to serve as pilings. The process of putting them in position is called "lacing"—a procedure that consumes most of the time required to erect the pier. A special crane takes from thirty to forty minutes to lace each of the giant steel tubes. However, this time factor is reduced if the lacing can be accomplished in a

sheltered area before the pier is towed to its final erection site.

The jacks—the primary and most revolutionary part of the pier—serve to hold the caisson off the bottom while the pier is being moved into position or while the caissons are being laced; they are used to drive the caissons to the bottom, and to raise the pier to the desired elevation. Simplified, the jack consists of two open barrels fitted loosely, one on top of the other. In both the upper and lower barrels are six rubber grippers and between them are three rubber bellows. The bellows and grippers may be inflated like inner tubes in automobile tires, thereby wedging them between the barrel and the caisson. The bellows push the two barrels apart, producing a "shinnying" action.

The jacks may be operated individually by local control or simultaneously from a master control panel. The pier thus can be kept level as each caisson finds enough bearing area to carry its share of the load. Adjustments can be made to within one-sixteenth of an inch.

The entire procedure of pier installation is relatively simple. The caissons are laced and the air jacks are inflated to hold them up. Then the pier section is towed to its destination and positioned, after which the air is bled out of the rubber grippers and the caissons are dropped. Then, one by one, the jacks drive the caissons down to firm footing on the ocean floor, after which the jacks raise the pier to the desired height.

To lower the pier, the above methods are simply reversed. The pier's natural buoyancy is employed to help pull the caissons out of the mud.

The military advantages which eventually may be derived from this innovation are numerous, not the least of which is the speeding up of logistical operations. With a trained crew, a DeLong pier can be installed over a period of days instead of months—enabling ships to unload more rapidly in future key combat areas.

Upon recommendation of the Military Transportation Committee of the Joint Chiefs of Staff, L. B. DeLong of Seattle, Washington, designer of the portable pier described in the foregoing article, has been named winner of this year's National Defense Transportation Association Award. The award is given annually to stimulate progress in the transportation field.

PARAGRAPHS

from

The Pentagon and the Field

The National Guard has been assigned a major role in the over-all plan to defend the United States against enemy aerial attack. Antiaircraft units in 26 states and the District of Columbia will take over responsibilities formerly assigned to Regular Army antiaircraft outfits.

The Guard is scheduled to contribute to the program approximately 112 nondivisional AA battalions, each normally with four firing batteries.

Guard units are being supplied by the Army with the latest available AA equipment. A number of them already have taken over "on site" positions, relieving Regular Army units for other assignments.

"This Is Your Army," a 9-reel, 76-minute, 16-mm. color documentary film portraying the Army's important activities and operations and conveying a realistic appreciation of the worldwide responsibilities of the Army, will be released soon to all troops. Produced under the supervision of the Chief of Information and the U.S. Army Signal Corps, the film is designed to give the individual a better understanding of the Army's mission.

Enlisted personnel who attend leadership and specialist schools now can be promoted while absent from their parent units provided they satisfy established requirements.

Within monthly quotas established by the Department of the Army, those who successfully complete enlisted courses at Army schools, including the Ranger course at The Infantry School, and leadership courses at training installations, may be promoted by the commander concerned. Those selected to attend Officer Candidate School will be promoted to the temporary grade of sergeant upon entrance to the school, if not already in that or a higher grade.

The Army Finance Center at Fort Benjamin Harrison reports that, as of June 1954, some 428,000 enlisted men and women had $46 millon on deposit drawing 4 percent interest under the Soldier's Deposit program. A year ago 276,000 soldiers had credit balances of $39 million. Participation in Soldier's Deposits has moved sharply upward, but average savings per depositor is down from approximately $141 last year to $108 in June 1954.

Establishment of an additional Army Field Forces Board, to be known as Board No. 5, has been announced by the Department of the Army. It will work closely with the XVIII Airborne Corps and the 82d Airborne Division on airborne materiel development and test projects.

At the same time, reorganization of Army Field Forces Board No. 1 was announced, with the agency moving to

Fort Sill, Oklahoma, in order to work more closely with The Artillery School in developing and testing field artillery and Army aviation equipment. The Communications and Electronics and Airborne Service Test Divisions formerly connected with Board No. 1 will now become a component of Board No. 5.

In keeping with these organizational changes, the Arctic Test Branch at Big Delta, Alaska, has been reorganized into five groups to provide a unit for arctic and sub-arctic tests of equipment for the Army Field Forces Boards.

Parts standardization is quietly pushing ahead at Corps of Engineers Spare Parts Supply and Stock Control Office, Columbus, Ohio, where extensive Federal catalog research is being conducted. The combined reduction of dollar inventory levels in roller chain and link line items alone totals $882,288, with 858 bin spaces saved.

The catalog research program developed that 408 line items, costing from $1.25 to $3.85 each, of cable, battery straps and lead assemblies could be reduced to 24 (18 bulk cable sizes and 6 terminal fittings). The adoption of these 24 items would supply all battery cable needs and result in a potential 80 percent reduction in inventory.

For the first time in the twelve years of its existence, the Women's Army Corps can feel a sense of permanence in its location. On 10 June an advance party of WAC personnel moved from Fort Lee, Virginia, to the newly established seven million dollar Women's Army Corps Center at Fort McClellan, Alabama, designed to accommodate and train two thousand Wacs and to be expanded if future requirements necessitate.

It costs $5800 during the first year to induct, transport, equip, train, feed, clothe and pay each new inductee. Thereafter it costs $5200 for each enlisted person.

The two-year inductee thus costs the Army $11,000. However, of the 104 weeks in service, the Army gets only 72 weeks of effective time; 32 weeks are spent in training, leave and travel.

With the opening of the 1954-55 academic year, fifty-three additional colleges and universities will convert their Army ROTC courses to General Military Science in place of the branch training type previously given. Of 241 institutions currently offering the Senior Army ROTC program, 162 now offer the General Military Science Course, first introduced in 1952.

Students currently receiving branch training in the advanced Army ROTC course will be permitted to complete the course in their respective branches. However, all incoming advanced Army ROTC students will take General Military Science at those institutions where the course has been adopted.

In anticipation of the selection of either the Army Ordnance designed T-44 or the Belgian T-48 full automatic rifle for general use by the NATO nations, contracts have been awarded to Harrington and Richardson, of Worcester, Massachusetts, and to the Springfield Armory for complete production studies of the two weapons.

Harrington and Richardson will convert all measurements of the T-48 from metric to English units. Springfield Armory, meanwhile, will devote its study to the T-44. From these two studies will come orders for an unspecified number of the new cal. 30, fully automatic rifles.

Bull's-eyes galore will be chalked up at The Infantry Center, Fort Benning, Georgia, from 27 October to 7 November, during final competition to select a rifle and pistol team to represent the United States at the 36th Annual International Shooting Union World Championship Matches. The try-outs, conducted under auspices of the National Rifle Association of America, have already progressed through regional tournaments and semi-finals at Camp Perry, Ohio. Marksmen finally selected at the Fort Benning contest will represent the United States at the International Shooting matches to be held 15-27 November at Caracas, Venezuela.

The first religious retreat house to be sponsored by the United States Armed Forces has been opened by the Army Chaplain Corps in Germany. Designated as the USAREUR Retreat House, the facilities will offer spiritual retreats for Protestant, Roman Catholic and Jewish personnel and will include a chapel, classrooms, a library of religious literature, living quarters, mess hall and recreational facilities. Navy and Air Force personnel will be eligible to attend.

The Retreat House will be located in the Alpin Inn at Berchtesgaden from May to September and in the Chiemsee Lodge, Chiemsee, from October to April.

Discussions have begun between Army staff representatives of Canada, Great Britain and the United States on ways to standardize oversea military transportation procedures. At a meeting with Major General Paul F. Yount, Army Chief of Transportation, a committee of British, Canadian and United States members was established to study the part each country will play in developing a standard military transportation system. The three countries already have standardized certain weapons and items of equipment.

To make possible the recovery and eventual re-use of parts in salvage Signal equipment, the Southeastern Signal School at Camp Gordon, Georgia, has instituted a Signal Parts Specialist Course to teach Signalmen to identify, classify and issue parts.

Students first take a six-week Signal Supply course to learn supply fundamentals. Then they are enrolled in the Parts course where they identify and substitute component parts in all Signal Corps equipment. The program is being launched Army-wide as a means of reclaiming millions of dollars worth of parts formerly discarded as salvage.

A detachment of 3 officers, 31 enlisted men and 15 civilians recently sweated out their assignments at the Yuma, Arizona, Test Station, where the summer temperatures reach 115 degrees and may climb to 160 degrees Fahrenheit. Tests were conducted by members of the Environmental Protection Division, Quartermaster Research and Development Command. Their purpose — to develop hot-weather data as part of the Army Quartermaster Corps program for providing maximum protection to the United States soldier in all kinds of climate and terrain.

The Quartermaster Corps also has developed an experimental suit for use by the Corps of Engineers in firefighting. Aluminum-coated, it gives greater protection against heat yet weighs less than the present standard Army fireman's uniform. It includes lightweight jacket and trousers, is chemically treated with neoprene for water-proofness and has a thin layer of aluminum

which reflects radiant heat. Laboratory tests have demonstrated that the suit can aid a man in withstanding 10 percent more heat than the standard types of firefighting apparel.

Protection from chemical and bacteriological agents is provided by a fiber diffusion board recently developed (but not yet standardized) by the Chemical Corps. A shelter constructed of this material is gas and bacteria-proof. It will afford protection against radiological agents and will be within the financial reach of every family.

While the diffusion board will stop and hold radioactive particles, it is not a "shield" against penetrating rays as is the lead covering on x-ray tables.

The Army Information School at Fort Slocum, New York, offers eight-week courses to train officers and enlisted personnel in public information and troop information and education.

Public Information courses cover preparation of news releases, special articles, photographs, posters, radio and TV presentations and other information material. Troop Information and Education courses present instruction in policies, principles and procedures necessary to inform and educate military personnel; in techniques of conference leading; in the administration of troop education activities; in the operation of Army newspapers and in troop information radio broadcasting operations overseas.

All students receive instruction in the present aims and capabilities of the nations of the world in the light of United States interests; current problems in world affairs; the problems and nature of citizenship and the government, defense policies and organization, and foreign relations of the United States.

The officer course qualifies graduates for Military Occupational Specialties as Public Information Officer (MOS 5401) and Troop Information and Education Officer (MOS 5004). Enlisted courses lead to designation as Public Information Specialist (MOS 1569), Troop Information and Education Specialist (MOS 1567) or Radio Broadcast Specialist (MOS 1568).

Reporting dates for classes during Fiscal Year 1955 will be 22 October 1954; 7 January, 11 March and 13 May 1955. Entrance requirements will be published in D/A Pamphlet 20-21.

Official Notes

AR 600-25 now requires that beginning 1 September 1954, the hand salute will be rendered by all Army personnel "at all times when they meet and recognize persons entitled to the salute, except in public conveyances such as trains and busses or public places such as theaters, or when a salute would be manifestly inappropriate or impractical."

Importance of the traditional aspects of the hand salute will be emphasized in conjunction with Army training programs.

Change 2, AR 35-1820, includes: (1) Provisions requiring Soldier's Deposits and interest to be forfeited upon desertion are deleted; and (2) Approval by Secretary of the Army is no longer required to stop an officer's pay when credit has been disallowed for any payment by the General Accounting Office in the accounts of a disbursing officer. The change also sets forth the procedure to be followed when: (1) members are sentenced to death and no forfeitures adjudged; (2) members are restored to duty pending appel-

late review; and (3) retroactive increases in pay or allowances are effected prior to date of court-martial orders.

DA Circular 74 calls attention to the fact that each service member on active duty should advise his dependents that, in the event of his death, the dependents should inquire promptly at the nearest field office of the Social Security Administration (addresses available at any post office) as to whether survivors' benefits are due. Dependents of military personnel who die while on active duty generally will be entitled to survivors' benefits, particularly when there are children under 18 years of age. Applications for benefits *must* be filed before any payments can be made, and such payments are retroactive for only six months. (See "Social Security for the Armed Forces," April 1954 Digest.)

The Army Transportation Corps has announced that qualified men may apply for appointment as warrant officers in three seagoing specialties: master, mate or marine engineer. Successful candidates will be appointed in the Army Reserve and called to active duty concurrently. Requirements of grade and service may be waived for those who have a valid license issued by the Coast Guard as third mate, third assistant engineer or higher. SR 140-106-1 covers procedures for applying.

Under provisions of DA Circular 74, issued 1 July 1954, commanders in the continental United States, before granting military personnel permission to visit outside the United States on a leave status, will see that they have sufficient funds to insure return transportation to their organization via commercial means, should space on military transportation not be available.

Change 4, AR 600-175 provides that enlisted personnel returning from an overseas area in which their last foreign duty was served are not eligible for further foreign duty until they have served for eighteen months in the United States—or in the territory which is their place of residence.. It also applies to enlisted men and women who have been discharged and who reenlist *within ninety days;* to personnel who are returned and hospitalized for reasons other than misconduct; and to residents of territories who are assigned to duty in the United States because of lack of grade and qualifications vacancies in the territory where they live. Assignment of such residents in the continental United States is not considered foreign duty. Enlisted personnel who reenlist *more than ninety days* after discharge may request foreign service at once, if they are qualified.

Change 3, AR 605-245 stipulates that under the discretionary authority conferred upon the Secretary of the Army by Title II, Public Law 810—80th Congress (D/A Bul 29) the Army will now approve voluntary retirement for Reserve officers under Title II on an unrestricted basis. Applications, submitted through channels to The Adjutant General, may be tendered by any Reserve officer who has completed not less than twenty years *active* Federal service in the Armed Forces at least ten years of which shall have been active commissioned service.

ARMY INFORMATION DIGEST

The mission of ARMY INFORMATION DIGEST *is to provide timely and authoritative information on the policies, plans and operations, including technical developments, of the Army and its reserve components, and of the Department of Defense and the other services, insofar as their activities pertain to or include the Army.*

The DIGEST is an official publication of the Department of the Army published monthly under the supervision of the Commandant, Army Information School, on behalf of the Chief of Information, Department of the Army.

Manuscripts on subjects of general interest to Army personnel are invited. Direct communication is authorized to: The Editor, ARMY INFORMATION DIGEST, Fort Slocum, New York.

Unless otherwise indicated, material in the DIGEST may be reprinted provided credit is given to ARMY INFORMATION DIGEST and to the author. Disclaimers, when used, must also be included in credit lines.

Subscriptions ($1.75 per year to domestic or APO addresses; $2.25 to other addresses) may be forwarded to Book Department, Army Information School, Fort Slocum, New York, or Superintendent of Documents, Government Printing Office, Washington 25, D. C.; single copies (price 15 cents) may be purchased through Superintendent of Documents only.

Back issues, as available, may be obtained upon request to the Editor.

The printing of this publication has been approved by the Director of the Bureau of the Budget, 20 May 1954.

DISTRIBUTION:

ACTIVE ARMY

Admin & Tec Svc Bd (1); AFF (75); Army AA Comd (5); MDW (29); Armies (26); Corps (12); Div (16); Brig (3); Regt (4); Bn (2); Co (1); Ft & Cp (4); Gen & Br Svc Sch (25) except USMA, CGSC, AWC, AIS; PMST ROTC units (2); Depots (2); Army Hosp (80); USA Hosp (15); Pers Cen (3); POE (4); Arsenals (2); DB (5); Cruit Dist (4); Cruit Main Sta (1); Cruit Sub Sta (1); Engr Div (1); Engr Dist (1); Mil Dist (2); Proc Dist (1).

NG & USAR

Same as Active Army except allowance is one (1) copy for each unit. Unless otherwise noted, distribution applies to CONUS and overseas.
(For explanation of abbreviations used see SR 320-50-1.)

A
I
D